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Food Buying Practices of the Elderly at Senior Centers in Edmonton

by

Ⓒ Brenda I. Brindle

A THESIS
SUBMITTED TO THE FACULTY OF GRADUATE STUDIES AND RESEARCH
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The undersigned certify that they have read, and recommend to the Faculty of Graduate Studies and Research, for acceptance, a thesis entitled Food Buying Practices of the Elderly at Senior Centers in Edmonton submitted by Brenda I. Brindle in partial fulfilment of the requirements for the degree of Master of Science in Agricultural Economics.

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Date October 13, 1981

Abstract

Rising food prices, relatively low incomes for senior citizens, and the increasing number of older persons suggested the need for a study to describe the food buying practices and problems of the elderly.

The objectives of this study were: to describe the food buying practices of selected senior citizens in Edmonton; to determine if they had difficulty buying food because of suggested purchasing problems; and to determine whether household expenditure, view of personal financial situation, and concern about food prices, was related to income level. Two hundred and thirty-six persons 65 years of age and older, were interviewed at ten senior centers in Edmonton, to obtain their responses to a personally administered questionnaire.

Elderly people at senior centers usually shopped for their major food purchase in the morning, at least once a week, at supermarkets. Personal vehicle, walking and bus, were all popular modes of transportation. Most chose their major store based on closeness to home, and travelled less than a mile for groceries. The elderly food shoppers were inclined to: use a shopping list; look at unit prices; store items at home when on special; and compare prices. They tended not to: shop around for specials; buy large or family size packages; or request packages be divided.

The areas most often identified by respondents as causing food buying difficulty were (respectively): food

quality; store pricing methods; package sizes; labelling; and packaging. When the difficulties were ranked (along with food prices and income) the problem areas were: food prices; food quality; store pricing methods; packaging; and income.

View of personal financial situation, and shelter and recreation expenditures for households of one person, were related to income level. Other expenditures and income for households of one person, expenditures and income for households of two persons, and concern about food prices, were not related to income level.

Implications for policy makers were: since many respondents judged their living standard by more than monetary measures, effective policy instruments should include more than cash grants; and educational programs should be introduced to inform consumers about nutritional food substitutions.

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Food marketers should consider increasing the availability of foods sold in small packages, especially perishable foods. Package designers should be aware of the elderly when designing packages.

Indications of this study were, that increases in income for seniors will not necessarily affect the food budget and that concern about food prices, does not necessarily indicate the concern is causing hardship.

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There are many people who provided support during this study. To them I am indebted.

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I. INTRODUCTION

A. BACKGROUND TO THE PROBLEM

Food is a basic need which must be accessible to all members of society. With a strong agriculture base, Canadians have little reason for concern about the quantity and availability of food. Relative to other countries Canadian consumers pay low prices for food. In Canada food expenditure, as a percentage of disposable income has declined over time (Appendix 1, Table 1). But food prices are rising. Canada's Consumer Price Index for food rose from 100 in 1971 (the base year) to 250.7 in March of 1980.[1] Increases in food prices may restrict food consumption for some consumers. Since food is a necessity, individuals living on a low income spend a larger amount of their budget on food than do other income groups. Because of this consumers on low incomes may have to make greater adjustments when food prices rise than would other consumers.

There is no average consumer, be they low income or high. Because of individual, cultural and social dimensions, each consumer reacts differently in the marketplace. However, groups of consumers may share certain characteristics in common. When this occurs they may stimulate changes in the marketplace.

---

[1] Statistics Canada, Consumer Prices and Price Indexes Catalogue 62-010 (January-March, 1980).

Older persons[2] are one segment of the population which may be having difficulty purchasing food and may be a potential factor for change in the food marketplace.

The elderly, whether as an economic family or unattached individuals, live on a lower income than other age groups (Appendix 1, Table 2). At the same time, they spend a larger portion of their income on food. After allowing for food, clothing, shelter, and travel and transportation, the discretionary portion of income is smaller for the aged than it is for other age groups (Appendix 1, Table 3). With restricted incomes the elderly either reallocate funds from other expenditures or reduce consumption when prices rise. A reduction in food consumption could lead to nutritional problems.

Nutritional problems among elderly people have been documented. In the national summary of Nutrition Canada, senior adults were reported as being at nutritional levels of moderate to high risk more often than other adults. Specifically, the Alberta Survey stated, "The elderly, especially the men, appeared to be the most vulnerable of any group to nutrient deficits ...".[3] When a national nutrition survey in the United States found deficient diets among the elderly, demonstration programs were established.

---

[2] Older persons are individuals who are 65 years of age or over. This term is used interchangeably with "older persons", "elderly", "seniors", and "aged".

[3] Nutrition Canada, The Alberta Survey - A report from Nutrition Canada by the Bureau of Nutritional Sciences (Ottawa:Department of National Health and Welfare, 1975.)

The programs were concerned with provision of appetizing, nutritious meals in settings conducive to eating and social interaction with peers. Public Law #258, The Nutrition Act, Title VII (Older Americans Act) - Nutrition Programs for the Elderly, summarized the results of the projects as:

> Many elderly do not eat adequately because:
> 1. they cannot afford to do so;
> 2. they lack the skills to select and prepare nourishing and well balanced meals;
> 3. they have limited mobility which may impair their capacity to shop or cook for themselves; and
> 4. they have feelings of rejection and loneliness which obliterate the incentive necessary to eat a meal alone.[4]

As this summary indicates, an inadequate diet may be due to more than food prices. Possibly the elderly are having other problems in the food marketplace as well. Difficulties obtaining food do not necessarily lead to deficiencies, but they might limit the selection of foods the elderly feel are available to them.

Although income levels of senior citizens are generally low, they spend a large percentage of their income on food, which should be of importance to the food industry. Not only is the portion of the population over 65 years of age increasing, but the average life expectancy is increasing as well. Consequently the elderly are becoming an increasingly important segment of the food marketplace. Yet the elderly are often over-looked by marketers.

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[4] Robert L.Schneider, "Barriers to Effective Outreach in Title VII Nutrition Programs," The Gerontologist 19 (February 1979): 163.

In the United States the elderly have been identified as "a potential formidable purchasing force". Food requirements of the aged have "endless opportunity for marketers".[5] However, little is known about the behaviour of senior citizens in the marketplace and there is virtually no information on their shopping behaviour.[6]

Most Canadian studies of senior citizens and food have dealt with the nutritional aspects of food purchasing by the elderly. There is a need for additional information which describes how the elderly purchase food, and how food prices and other potential buying problems affect the elderly food shopper.

B. OBJECTIVES OF THE STUDY

The objectives of this study were:

1. to describe the food buying practices of selected older persons living in Edmonton;
2. to determine if they had difficulty buying food due to potential food buying concerns, namely:
    a. health problems
    b. physical problems
    c. store design
    d. store service

---

[5] Leonard John Fela, "The Elderly Consumer Market: A Psychographic Segmentation Study" (Ph.D. dissertation, Syracuse University, 1978).

[6] J.B. Mason and B.E. Smith, "An Exploratory Note on the Shopping Behavior of the Low Income Senior Citizens," The Journal of Consumer Affairs 8(Winter, 1974): 204.

  e. food package sizes
  f. food packaging
  g. store pricing methods
  h. food labelling
  i. food quality
  j. home storage
  k. financial situation
  l. food prices

3. to determine whether household expenditure was related to income level.[7]
4. to determine whether view of personal financial situation was related to income level.
5. to determine whether concern about food prices was related to income level.
6. to discuss the respondents' food buying practices and concerns in terms of implications the findings may have for government and the food industry.

C. HYPOTHESES

The hypotheses of this study were:

1. Household expenditures are significantly different for low income senior citizens than for higher income senior citizens.
2. Attitude towards current financial situation is significantly different for low income senior citizens

---

[7] Income level is based on receipt of G.I.S./A.A.I.P., with "low income level" being recipients and "higher income level" being non recipients.

than for higher income senior citizens.

3. Expression of food price concern is significantly different for low income senior citizens than for higher income senior citizens.
4. Reaction to food prices is significantly different for low income senior citizens than for higher income senior citizens.
5. Senior citizens are concerned about the following aspects of food buying:
   a. health problems
   b. physical problems
   c. store design
   d. store service
   e. food package sizes
   f. food packaging
   g. store pricing methods
   h. food labelling
   i. food quality
   j. home storage
   k. income
   l. food prices

D. ASSUMPTION

The Alberta Assured Income Plan and the Guaranteed Income Supplement are available to those senior citizens who have little or no income other than Old Age Security.[8] This study assumes a low income is an income which includes the Alberta Assured Income Plan and the Guaranteed Income Supplement as sources of income.

E. SOURCES OF DATA

Primary data was the main type of data used in this research. The data represented the responses of older persons to a personally administered questionnaire. Only responses from individuals 65 years of age and over who did their own food buying were used in this study. The interviews were with 236 seniors who were attending senior center facilities during November and early December, 1980 in Edmonton. The questionnaire was designed to obtain information on:

1. where and how senior citizens obtain food;
2. allocation of household income;
3. suggested and respondent identified food buying difficulties; and
4. demographic information to describe the sample selected, and to relate to their food buying practices and problems.

Data from Statistics Canada, provincial and municipal records was the secondary data. This data consisted of available demographic information on senior citizens in

---

[8] Alberta Social Services and Community Health, Programs for Senior Citizens (March 1980), p. 4.

Alberta and Edmonton. It was used to obtain a consumer profile of senior citizens.

F. OUTLINE OF THE STUDY

Chapter 2 will provide a consumer profile of senior citizens.

Chapter 3 will be a review of related studies.

Chapter 4 will discuss the methodology used.

Chaper 5 will present and discuss the data obtained.

Chapter 6 will provide implications of the study for policy makers and marketers. It will also present areas recommended for further study.

II. PROFILE OF ALBERTA'S SENIOR CITIZENS

A. POPULATION

The elderly segment of Canada's population is increasing. In 1901, 5% of the Canadian population was over 65 years of age. By 1976 this portion had risen to 8.7%.[1] The elderly are expected to comprise between 11% and 13% of Canada's population by the year 2001.[2]

Alberta, in terms of its population's age distribution, is one of Canada's youngest provinces[3] (Appendix 1, Table 4). Because of the influx of young people into Alberta in recent years the growth of the province's elderly segment appears moderate (from 7.29% in 1971 to 7.51% in 1976).[4] However, in absolute values, the number of senior citizens is increasing, and is expected to double by 2001.[5]

Within the province there is considerable variation in the geographical distribution of the elderly. Most are located in Edmonton area census division (29.8%), Calgary area census division (25.3%), and the agricultural areas.[6]

---

[1] Census of Canada, 1901; Census of Canada, 1976.

[2] Statistics Canada, Population Projections for Canada and the Provinces 1976-2001 Catalogue 91-520 (February, 1979).

[3] Mary Englemann and Carol Stevenson, Profile of Older Persons in Alberta: Demographic Characteristics and Service Utilization Staff Working Paper #1 (Edmonton: Alberta Social Services and Community Health , February 1980), p. 31.

[4] Census of Canada 1971; Census of Canada 1976.

[5] Englemann and Stevenson, p. 2.

[6] D. G. Murri and R. Hornbrook, "Residential Concentrations of Individuals Age 65 and Over", (Paper presented at the Research in Aging Seminar, Calgary, Alberta, 20 June 1980).

Metropolitan Edmonton's population of 554,228 is comprised of 35,760 seniors representing 6.5% of the city's population[7] (Appendix 1, Table 5).

B. SEX RATIO, MARITAL STATUS AND LIVING ARRANGEMENT

There are more women than men in the over 65 age group. In Alberta, 52.3% of the senior population is female while 47.7% is male. In the over 75 age group, 55.2% are women. In Edmonton there is an even greater difference in the elderly population distribution between the sexes. In 1976, 55.8% of the elderly were female and 44.2% were male[8] (Appendix 1, Table 5).

There is a distinct difference in the marital status of men and women 65 years of age and older. Fifty-six percent of Alberta's elderly population are married. But fewer women (41.6%) are married than men (73.1%).[9] THE DIFFERENCE IN MARITAL STATUS IS REFLECTED in living arrangement. In Alberta, more elderly women (31.4%) live alone than elderly men (14.5%)[10] (Appendix 1, Table 6).

C. HOUSING

Housing for senior citizens takes many forms. In addition to private dwellings and apartments, there are senior citizen apartments, senior citizen lodges, private homes for special care, public housing, nursing homes and auxiliary hospitals. Most seniors are non-institutionalized (88%). Many own their own home (70%).[11] Some of the seniors renting accommodation Some of the seniors renting accomaare in apartments under the Senior Citizens Self Contained Housing Program. Under this program eligible seniors may rent apartment units for 25% of their income.[12]

---

[7] Census of Canada 1976.

[8] Ibid.

[9] Ibid.

[10] Englemann and Stevenson, p. 42.

D. SOURCES OF INCOME

Government transfer payments are the most common source of income for senior citizens. Almost all senior citizens receive the federal government Old Age Security (O.A.S.). This pension is available to all persons 65 years of age or older who were born in Canada or lived in Canada for the last ten years.[13] Other sources of income have no effect on the receipt of O.A.S. In March 1980, approximately 95% (152,266) of elderly citizens in Alberta received O.A.S.[14]

Guaranteed Income Supplement (G.I.S.) is available to recipients of O.A.S. who have little or no other income. Receipt of the supplement depends on taxable income and marital status. The amount received varies with the individual's income in the previous year.[15] The supplement is included with the O.A.S. cheque. Persons eligible for the G.I.S. must apply for it annually.[16] In March 1980, 80,748 Albertan seniors were receiving G.I.S. Therefore, of the persons receiving O.A.S. approximately 53% had incomes low enough to receive supplements.[17]

---

[11] Mary Englemann, Senior Citizens Bureau, Alberta Social Services and Community Health, Edmonton, Alberta. Telephone Interview, 6 April 1981.

[12] Alberta Social Services and Community Health, Programs for Senior Citizens. (March 1980), p. 4.

[13] Ibid.

[14] Brian Stephens, Senior Citizens Bureau, Alberta Social Services and Community Health, Edmonton, Alberta. Interview, 7 August 1980.

Both the the O.A.S. and G.I.S. are adjusted in January, April, July and October each year, if there is an increase in the cost of living index (sic).[18]

In Alberta there is a provincial income security program--the Alberta Assured Income Plan (A.A.I.P.). All recipients of G.I.S. automatically receive the A.A.I.P. as a separate cheque. The amount varies with the amount of G.I.S. received. Unlike O.A.S. and G.I.S. , A.A.I.P. is not indexed.

On October 1, 1980 a senior citizen eligible for the maximum supplement received $466.43 if single and $424.19 if married (Appendix 1, Table 7).

Another source of government transfer payments is the Alberta Social Assistance Program. Eligibility depends on needs, total income from all sources, and cash assets.[19] In June 1979, 1.3% of Alberta's seniors received coverage from this plan.[20]

---

[15] "When other income exceeds $4,751.99 per year for a single person, or $7,343.99 for a married couple both of whom receive O.A.S., supplementary payments cease". Alberta Social Services and Community Health, "Senior Citizens Bureau Fact Sheet". September 1980.

[16] Alberta Social Services and Community Health, Programs, p. 4.

[17] Stephens, Interview.

[18] The "cost of living index" referred to in, Alberta Social Services and Community Health, Programs, p. 4., is the Consumer Price Index.

There are other sources of income available to senior citizens such as employment, Canada Pension Plan, retirement pensions, investment income and war veteran's pensions. However, recent data is not available on the sources of income for the elderly population in Alberta. This information is included in the Census every ten years and will be collected in 1981.[21]

E. INCOME IN KIND

As money income does not completely reflect the spending power of the aged, income in kind should be considered.

In Alberta there are programs and/or services available which provide non-money income to seniors. Specifically persons 65 years of age and older:

a) do not pay premiums for health insurance;

b) do not pay premiums for Alberta Blue Cross Plan;

c) receive some assistance for paying for eye glasses, dental care and dentures, hearing aids, surgical supplies and medical equipment through the Extended Health Benefits Program;

d) receive a grant of $500 if they rent subsidized housing;

---

[19] Ibid. p. 6.

[20] Englemann and Stevenson, p. 9.

[21] Ibid.

e) receive a grant of $1000 if they rent non-subsidized housing;

f) receive a grant of up to $2000 for repair of their home, according to their income level;

g) receive a reduction of provincial school taxes through a property tax reduction;

h) receive a property tax rebate varying with the property tax reduction; and

i) are eligible for various local discounts.[22]

An example of local discounts available in Edmonton is public transportation. A senior citizen may purchase a bus pass for $5. The bus pass is good for life.

In addition, some senior citizens receive food, personal care, recreation, housing and/or direct money gifts from friends and families. One estimate places the value of unreported money and non-money income sources (not considering the market value of goods and services from relatives and friends, nor the value of discounts from business and government) at 30% above the reported income of senior citizens.[23]

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[22] Alberta Social Services and Community Health, Programs.

[23] Leroy O. Stone and Michael J. MacLean, Future Income Prospects for Canada's Senior Citizens.(Montreal: Institute for Research on Public Policy, 1979), p. 25.

III. REVIEW OF RELATED LITERATURE

A. INTRODUCTION

Markets may be divided into differentiated areas for the purpose of examination and comparison. Directing goods and services to a specific area of the market is referred to as "market segmentation". One way of segmenting the market is by population characteristics such as social class, educational level and age. When market segmentation is discussed with regard to age it is often thought of in terms of the youth market. However, extended life expectancy has resulted in demand for goods and services which are especially needed or desired by senior citizens. Growing numbers and increased purchasing power through pension plans, Medicare, and other forms of financial support make it likely that this market segment will be increasingly recognized.[1]

In the past, attempts to segment the aged portion of the food marketplace have been made. One example of a failed attempt is a product of H.J. Heinz Co. After discovering many elderly consumers were eating the company's baby food, H.J. Heinz Co. packaged a special line of "senior's food". The new product failed as seniors preferred to purchase the baby food, claiming it was for their grandchildren.[2]

---

[1] Theodore Beckman et al., Marketing 9th edition (New York: The Ronald Press Company, 1973) p.89

[2] "The Power of the Aging in the Marketplace," Business Week , November 20, 1971.

Information on the buying practices and problems of elderly food buyers may provide background information for marketers and policy makers interested in the provision of goods and services for seniors. Hopefully difficulties such as encountered by H.J. Heinz Co. could be minimized. The purpose of this review is to discuss studies related to food purchasing practices and problems of elderly food buyers.

B. GENERAL FOOD BUYING PRACTICES OF THE ELDERLY

Where They Shop

Senior citizens are primarily supermarket shoppers.[3] They tend to have established store preferences[4] and to be store loyal [5]

Swartz found elderly persons, who obtain their food from more than one store, frequent specialty stores, such as butchers and bakeries.[6] However, he provided no food source options to the respondents. A study of food shopping in general (ie. not just senior citizens) suggested the following alternative sources of food: corner/convenience store (the most popular alternative); specialty store; supermarket; farmers market; food co-operative; and door delivery.[7] Another possible food source is "food away from home". Senior citizens spend considerably less on food purchased away from home than do other age groups, possibly due to less mobility, poor health and lower income.[8]

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[3] Ibid.; J. Leichter et al., "Nutritional Status of Select Group of Free Living Elderly People in Vancouver," Canadian Medical Association Journal 118 (1978); Joseph Barry Mason and Brook E. Smith, "An Exploratory Note on the Shopping Behavior of the Low Income Senior Citizen," The Journal of Consumer Affairs 8 (1974): 209; Judy L. Rountree and Gwendolyn L. Tinklin, "Food Beliefs and Practices of Selected Senior Citizens," The Gerontologist 15 (December 1975): 538; and Robert D. Swartz, "Shopping Patterns of Residents in Detriot Area Government-Assisted Senior Citizen Housing," Michigan Academican 12 (winter 1980): 337.

[4] Business Week

[5] Jo-Ann Zbytniewski, "The Older Shopper : Over 65 and Overlooked?," Progressive Grocer 58 (November 1979): 109.

[6] Swartz, p. 341.

One study found the most frequent reasons for grocery store choice for persons over 44 years of age were: product assortment; proximity to home; merchandise quality; accessiblity; parking facilities; and low prices, in that order.[9] Another study found that distance was the reason given most often for shopping at a particular store, especially for the portion of the sample living in a high rise apartment complex. The authors suggested available means of transportation and the presence of a supermarket within one block may have been the reason.[10] Low income food shoppers, (not necessarily elderly) said: price; quality of food; and service were more important factors when choosing a food store, than closeness of the store. Some may question the rationale of low income consumers who do not select food stores on the basis of price, or who frequent neighbourhood stores with relatively high prices. But Boone and Bono suggest these consumers are aware of the consequences of their actions and balance convenience, personal friendship, and credit, against higher prices. "Their actions reflect not those of uneducated consumers some writers describe but rather, those of purchasers who have deliberately chosen to patronize stores providing them with products and services they desire."[11]

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[7] Select Standing Committee on Agriculture, British Columbia Food Shoppers, Attitudes and Behavior (Legislative Assembly Province of British Columbia, April 1978) p. 22.

[8] Anthony Gallo and William T. Boehm, "Food Purchasing Patterns of Senior Citizens," National Food Review (September, 1978): 44.

[9] Howard G. Schutz et al. Lifestyles and Consumer Behavior of Older Americans (New York: Praeger Publishers, A Division of Holt, Rinehart, and Winston/CBS, Inc., 1979), p. 128.

[10] Rountree and Tinklin, p. 538.

Transportation and Distance

Most studies have found cars (either personal or cars belonging to friends or relatives), bus and walking are the most common means of transportation used by senior citizens to obtain food. However, the research varies in the relative importance placed on each of these modes. One study of persons forty-five and older found most respondents drove to the grocery store (43%) followed by walking (15.2%), and another person driving (13.3%).[12]

Elderly residents of a high rise apartment complex, living within a block of a supermarket, generally walked to the grocery store (72%). Whereas non-high rise apartment residents, possibly not as close to a supermarket, mainly used a personal car for shopping (57%).[13]

In a study of two populations in two different years, affluent respondents appeared to have greater access to rides from other persons, than did less affluent respondents. Bus usage was more common for the lower income sample (8% vs 1%). The distance travelled to the store, at which the respondents were interviewed, correlated with means of transportation. Shoppers who walked tended to live closer than those who drove.[14]

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[11] Louis Boone and John A. Bono, "Food Buying Habits of the Urban Poor,". Journal of Retailing 47 (Fall 1971).
[12] Schutz et al.., p. 129.
[13] Rountree and Tinklin, p. 538.

Seniors living in government assisted housing used rides with others, bus, walking, and own car, as means of transportation. However, usage of transportation mode appeared to vary with the housing complex. A criterion for approval of these housing complexes was that a supermarket must be within 1500 feet of the complex. Even so, 75 percent of the seniors surveyed travelled more than this distance to obtain food. The author concluded that disparate shopping patterns of senior citizens were reflected in the varied distance responses. As a result, he thought the 1500 foot criterion was unnecessarily limited.[15]

In Mason's and Smith's study of low income senior citizens in a public housing complex, transportation with friends and relatives was the most popular mode, followed by private automobile.[16] Bus, taxi, and walking were ranked almost equally. The authors pointed out that the rate of automobile usage was less than the national average indicating a mobility problem for the low income elderly.

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[14] Edith M. Sherman, and Margaret R. Brittan, "Comtemporary Food Gatherers, A Study of Food Shopping Habits of an Elderly Urban Population," The Gerontologist 13 (1973): 361.
[15] Swartz.
[16] Mason and Smith, p. 206.

Although bus transporation to major shopping centers was regularly arranged free to complex residents, usage was relatively low. The residents were found to frequent the central business district, which was within walking distance, for most shopping. But many travelled further for food purchases. The authors stated, "this is contrary to statements in the literature of traditional economic theory which assumes that consumers seek to minimize physical distance travelled in making purchases."[17]

When They Shop

Most elderly food shoppers appear to shop at least once a week (90%),[18] (74.8%).[19] Many prefer Friday (44%) with Saturday secondary (18%).[20] In general, they choose to shop in the morning[21] and have less tendency to shop in the evenings than the remainder of the population.[22]

C. SPECIFIC FOOD BUYING PRACTICES OF THE ELDERLY

Specific food shopping habits are practices frequently done as part of the food buying procedure.

Some habits may be economizing. For example, the use of a grocery list indicates planning and may mean lower food costs. In a study of non-elderly persons, after considering the cost of groceries per number of persons in the household, those spending the smallest amount used a list of some sort when grocery shopping.[23] In another study, the practices included as potential ways to economize on food shopping included: comparison shopping; shopping lists; volume buying; reading ingredients; checking nutrition information; planning menus; and shopping at more than one store.[24] In British Columbia, shopping effectiveness was defined "as being positively related to the frequency with which respondents used deep freezers; canned or froze some foods; avoided convenience foods; checked the label for ingredients; and bought family size packages".[25]

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[17] Mason and Smith, pp. 206, 208.

[18] J. Barry Mason and William O. Bearden, "Profiling the Shopping Behavior of Elderly Consumers," The Gerontologist 18 (1978), p. 457.

[19] Schutz, p. 127.

[20] Mason and Smith, p. 206.

[21] Ibid, p. 205; Mason and Bearden, p. 456.

[22] Zbytniewski, p. 110; and Mason and Smith, p. 205.

Information Sources

Studies differ in their reports of media usage as a source of shopping information for the elderly. Zbytniewski, in a grocery store survey, reported 71% of respondents 65 and over read the store advertisement vs 50% of respondents under 65.[26] Based on three national surveys by the United States Department of Agriculture, Kaitz indicated more persons 50-64 "always" or "almost always" read the store advertisement, than foodshoppers age 65 or over.[27] Mason and Smith found more than 75 percent of their low income senior citizen respondents relied on the newspapers as the primarily source of information on food purchases. [28] In general, personal judgement and experience and the advise of family and friends were found to out-rank printed sources for consumer information for persons over 50. For example, as a source of consumer information for frozen vegetables, 52.3% used personal judgement and experience, 11.4% used family and friends, 2.9% used television, while 1.2% used the newspaper.[29]

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[23] Christine M. Bruhn, "Food Purchasing Patterns of Migrant Agriculture Families," The Journal of Consumer Affairs 5 (Summer 1971).
[24] Evelyn F. Kaitz, "Getting the Most From Your Food Dollar," National Food Review (Winter, 1979).
[25] Select Standing Committee on Agriculture, p.26.
[26] Zbytniewski, p. 110.
[27] Kaitz, p. 27.

Brand Loyalty

Seniors have been identified as being a brand loyal segment of the population. In response to the statement "I try to stick to well-known brands.", 86% were in agreement, and the portion of the total population agreeing increased with the age bracket.[30] In another study, one-third of the sample reported they patronized familiar brands when selecting packaged goods.[31] Another study questioned elderly food shoppers on their use of store brands. Most purchased store brands at least every third shopping trip. The primary reason given for private brand usage was lower price.[32]

Coupon Usage

Zbytnienwski reports that seniors were more likely to use coupons than younger persons (35% vs 27% respectively).[33] But Mason and Bearden contradict Zbytnienwski's study. Although 32.8% of Mason's and Bearden's elderly respondents reported use of coupons at least every other shopping trip, 46.3% seldom or never used coupons. The authors considered this low usage compared to the total population where "9 out of 10 persons redeem coupons at one time or another".[34] In another study, in response to the statement "I like to save and redeem saving stamps", 83% of females 55 and over agreed vs 70-75% of their younger counterparts. Usage by men was much lower, with 58% of men over 55 agreeing with the statement vs 31-43% of those under 55.[35]

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[28] Mason and Smith, p. 207.
[29] Schutz et al., pp. 88.
[30] Fred D. Reynolds and William D. Wells, Consumer Behaviour (New York: McGraw-Hill Book Company, 1977), pp.. 175, 178.
[31] Schutz et al., p. 129.
[32] Mason and Bearden, 1978, p. 458.

Summary of Specific Habits

In general, elderly shoppers appear to be more cautious, more set in their preferences, shrewder comparison shoppers than younger consumers, loyal to old established products and purchasers of nationally advertised brands.[36]

D. ELDERLY FOOD BUYING DIFFICULTIES

As mentioned in the introductory chapter, many reasons have been cited for nutritional problems among the aged. Atchley lists these causes as: inadequate income; living alone; loss of teeth; difficulties of food shopping; and long- standing poor eating habits.[37] This section of the review of related studies will be concerned with difficulties of food shopping, including income and food prices.

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[33] Zbytniewski, p. 110.
[34] Mason and Bearden, 1978, p. 458.
[35] Reynolds and Wells, pp. 175,178.
[36] Business Week

Income Difficulty

Income adequacy is a meaningless concept unless referring to a particular family at a given time and place.[38] Adequacy of income will vary with: the geographical location of the individual; living arrangement; receipt of income in kind; quantity and quality of current possessions; and ability to manage finances. In any case, attempts to measure income adequacy may use: a measurement of cost of living allowing for a reasonable margin for discretionary spending and saving; a poverty line; the level of income relative to preretirement; and a measurement of the gap between seniors' income and younger persons.[39] It is not the intent of this discussion to determine the adequacy of the elderly's income. However, "present minimum income for a significant sector of the population over 65 falls at the most conservative poverty line (Economic Council of Canada), and below Statistics Canada and Canadian Council on Social

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[37] Robert C. Atchley, The Social Forces in Later Life - An Introduction to Social Gerontology 2nd edition (Belmont, California: Wadsworth Publishing Company, 1977) p. 122.
[38] Leroy O. Stone and Michael J. Maclean, Future Income Prospects for Canada's Senior Citizens Montreal: Institute for Research on Public Policy, 1979), p. 26.
[39] Stone and MacLean, pp. 27,28.

Development poverty lines".[40]

Senior citizens are often referred to as living on fixed incomes. Approximately 95% of elderly persons in Alberta receive O.A.S., of which about 53% receive G.I.S.[41] Both of these pensions are indexed quarterly to the Consumer Price Index (CPI). Thus "fixed" income may be an erroneous term.

The system of indexing has been questioned by some.

> The use of the Consumer Price Index as a basis for indexing retirement incomes (especially Old Age Security and Guaranteed Income Supplement) does not reflect the spending patterns of older persons, especially those on lower incomes. Lower income persons will be most significantly, affected by inflation rates on food and shelter, and will not normally have sizeable investment incomes which are compensated for inflation by rising interest rates.[42]

> Inflation hurts older females more than the consumer price index indicates because the elderly spend a significantly higher proportion of their income on food and shelter than the rest of the population, and food and housing costs increased more than any other CPI components from 1967 to 1975 (80 percent and 61 percent, respectively).[43]

Saskatchewan has recommended that the federal government develop a consumer price index reflecting expenditures realistic for senior citizens. However, the Saskatchewan article also points out, that indexing does not help persons whose pensions are not adequate. Therefore, they advocate an increase in federal pension levels.[44]

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[40] Brian J. Stephens, "Retirement Options: A Summary," in Provincial Senior Citizens Advisory Council Annual Report (December 1979) Appendix B.

[41] Brian Stephens, Senior Citizens Bureau, Alberta Social Services and Community Health, Edmonton, Alberta. Interview, 7 August 1980.

[42] Stephens, "Retirement Options...", Appendix B.

[43] Kevin Collins, Women and Pensions (Ottawa: The Canadian Council On Social Development, 1978), p. 43.

In the United States, several studies examined the need for a separate consumer price index for the elderly. Three such studies, referred to in Schultz, concluded that the cost of living had not risen faster for the elderly than for other groups.[45] However, all three studies covered periods prior to June 1974. Changes in the economic situation would possibly produce different results now.

Statistics Canada has recognized the greater impact of food and housing on low income people. An experimental consumer price index using low income expenditure weightings has been developed by Statistics Canada. Because of other components of the price series and relative deviations from the official CPI, the difference between the official CPI and the CPI for lower income households is fractional. Statistics Canada does point out limitations of the study. Prices used for the official CPI may not be representative of prices paid by low income households. There may also be differences in the quality or quantity of commodities purchased. Variations in subsidized prices may be another consideration. Finally the sample which was used for weighting was not specifically designed to yield low income expenditures.[46] The question remains unanswered as to whether the consumer price index accurately reflects costs faced by low income households.

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[44] "The Senior Consumer," The Consumer Times (Saskatchewan Consumer Affairs, Winter 1980), p. 2.

[45] James H. Schulz, The Economics of Aging (Belmont, California: Wadsworth Publishing Company, Inc., 1976), p. 33.

In a Canadian study on the impact of inflation on certain socio-economic groups, the cost of living was found to rise faster for low income households relative to other income groups. However, increased government benefits did protect low income families from inflation. Sources of income (pension benefits and investments) for the elderly did not keep up with inflation.[47]

With a restricted income and frequently purchased items rising in price, there comes a point when the elderly must reallocate funds or reduce consumption.[48] Green suggests, "when money is cut, people cut the food budget first, and the elderly are no exception".[49] Others suggest that during the early retirement years, with rising rent and prices, recreation spending is sacrificed first.[50]

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[46] Statistics Canada, Supplement to Consumer Prices and Price Indexes Catalogue 62-010 Quarterly (January - March 1980).

[47] Marcel Boyer, "L'impact des periodes inflationnistes 1969-1975 et 1969-1978 sur la position relative des menages au Canada", (mimeographed abstract entitled "The Impact of Inflation - The Older and Richer You Are, The Worse it Hurts").

[48] Edward J. Deak and Walter J. Smith, "Inflation and the Elderly," Aging (September-October 1979): 5.

[49] Joncier E. Green, "AoA's Nutrition Education Initiative," Aging (September-October 1980).

[50] Background paper to the Brief Presented to the Special Senate Committee on Retirement Age Policies by the Minister of National Health and Welfare. Retirement Age. Revised April 1979. p. 65.

Income may not be the main problem food buying problem for senior citizens.

> If the senior consumer's major problem stems not so much from being old as from being poor, it is interesting that many seniors themselves do not see lack of income as an overwhelming problem. Part of the reason may be because seniors are not consumers of goods and services to the extent that most other people are. Studies indicate that loneliness, health problems and just feeling left out or no longer useful are real worries for many senior citizens.[51]

Difficulty with Food Prices

Canadian food prices are increasing. Based on 1971 base year, all items in the consumer price index registered at 221.3 in December 1980. At the same time, food had an index of 277.0.[52] Concern has been expressed that the cost of living index (sic) does not accurately reflect the needs of older persons as food costs generally make up a large share of pensioners' expenditures and not enough weighting is given to the increase in food costs.[53]

During the spring of 1979 a study was carried out by the Alberta Council on Aging and Alberta Consumer and Corporate Affairs to investigate consumer concerns of Alberta's senior citizens. Of the 420 elderly respondents 181 expressed concern about food, making it the primary concern discovered by the study. Of those concerned about food, 84.5% expressed concern about the price of food.[54]

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[51] "The Senior Consumer", p. 2.

[52] Statistics Canada, Consumer Price and Price Indexes Catalogue 62-010 Quarterly. (October-December 1980).

[53] Provincial Senior Citizens Advisory Council "Report to the Honourable Bob Bogle, Minister of Social Services and Community Health" (December 1979): 12

While the elderly spend proportionately more on food at home than other age groups they spend less on food purchased away from home. Nonetheless they still spend more on total food expenditure relative to other age groups. Although they receive about 10.5% of total income in the United States, they account for about 13 percent of all food purchases.[55] As mentioned in the previous section, with restricted incomes seniors may need to reallocate funds or cut down or eliminate consumption of some items. They may cut back on spending other than food. But for an older person living in subsidized housing, using a bus pass for transportation, there may be no room left for cutting down on non-food expenditures.

Food choices for the elderly are influenced by price, in addition to taste, health belief, and convenience.[56] Consideration of food prices may lead the elderly to substitute or eliminate certain foods. Allentuck suggests that they may substitute inexpensive carbohydrates (for example, bread, pasta, potatoes, cereals) for expensive protein foods and vitamin-rich produce.[57] They may also omit certain foods or forego some meals altogether. The substitutions and elimination of foods may lead to nutritional imbalances.[58]

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[54] Alberta Council on Aging and Alberta Consumer and Corporate Affairs, The Consumer Concerns of Alberta's Senior Citizens, Final Report and Recommendations (Edmonton, August 1980). p. 7.

[55] Anthony Gallo and William T. Boehm, "Food Purchasing Patterns of Senior Citizens," National Food Review (September 1978): 43.

[56] Barbara Floyd, Research Officer, Department of Nutrition and Food Science, University of Toronto letter to Brenda Brindle, 13 May 1980.

Portion Size

As mentioned earlier, one means of economizing when buying food is to purchase large volume quantities. However, in the case of seniors, who are usually in one or two person households, volume buying may not be economical in the long run. "Family size packages when considering elderly budget limitations and the typical rate of usage in small households, are inappropriate and, in the case of many foods, wasteful."[59] As many senior citizens live alone, they prefer to buy single-serving items and small-quantity packages of meat and produce.[60] In a study asking "what might companies and stores do to help customers who are senior citizens", about 9.4% of those 55 to 64 years of age and 8.2% of the aged, mentioned a need for smaller packages of perishable products. Several stated that rather than attempt to get prepackaged items divided into smaller packages, they forego some purchases.[61] The Food Marketing Institution has noted the need for smaller packages, not only for senior citizens but also for other smaller and non-family households.[62]

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[57] Andrew Allentuck, The Cost of Age (Don Mills, Ontario: Fitzhenry and Whiteside Limited, 1977), p. 90.

[58] Deak and Smith, p. 7.

[59] J. Barry Mason and Willian O. Bearden, "Satisfaction/Dissatisfaction with Food Shopping Among Elderly Consumers," The Journal of Consumer Affairs 13 (Winter 1979): 362.

[60] Zbytniewski, p. 110.

[61] Lambert, p. 47.

Packaging

The packaging itself may be a factor of difficulty for elderly food shoppers. Many find packaging confusing.[63] It has been acknowledged that during the 1980's packaging will have to be redesigned with older consumers in consideration.[64]

Physical Difficulties

Elderly food shoppers may be faced with physical difficulties which create problems when food shopping. These problems include too low a temperature in the stores and handling of shopping carts.[65] A few surveys suggest that some senior citizens need a place to sit and rest while grocery shopping.[66]

Health Difficulties

The food buying decisions of older persons are influenced by concerns for diet and health. Health difficulties prevent shopping, cooking and eating and this may interfere with good nutrition.[67] Elderly persons tend to shun high-cholesterol foods and limit their salt intake. In addition they generally recognize the need for nutritional foods to help fight off illnesses.[68] Some have suggested that those on low-sodium or low-cholesterol diets may find labelling, of those ingredients on the products, difficult to find.[69]

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[62] "Young Mothers and Senior Citizens Expected to be Key Markets in '80s," Food Product Development (July 1980): 59.

[63] "Seniors Eating More Than Toast" The Albertan (Thursday, January 31, 1980): 32.

[64] "Packagers Told Power in Food Industry Shifting From Manufacturers to Retailers," The Globe and Mail March, 1981.

[65] Mason and Bearden, 1979, p. 364.

[66] Ibid; Lambert, p. 47.

[67] "Seniors' Buying Profiled", Advertising Age (October 20, 1980): 108.

Storage Space

Limited storage space in the home may present a food buying problem. There may be insufficient room to stock up on specials and/or limited space may necessitate frequent trips to the store, which may be difficult for some less mobile seniors. In one study, some respondents (22%) living in a high rise apartment complex gave lack of storage space as a reason for the frequency of buying groceries.[70]

Difficulty with the Store and Staff

The store itself may pose difficulties for food buying seniors particularly when combined with physical problems. In a general study of shopping concerns of seniors, some respondents expressed difficulty in reaching for some products, concern about hazards around store entrances, and obstructions in store aisles.[71] With respect to store services senior respondents commenting on general shopping concerns mentioned a need for assistance in locating products, faster check-out provisions, purchasing assistance and package carry out.[72] The same respondents implied dissatisfaction with their treatment by store personnel and wanted personnel to treat older consumers with more courtesy, dignity and respect.[73]

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[68] Reynolds and Wells, p. 172.

[69] Zbytniewski, p. 110.

[70] Rountree and Tinklin, p. 538.

[71] Lambert, p. 48.

Labelling

In an Alberta survey of seniors, of those expressing concern about food, 34.8% expressed concern about labelling. Specifically, seniors were mainly concerned about metric measurement and French language labelling.[74] Labelling difficulties may take other forms as well. Some seniors find labels and price markings difficult to read. The reasons given by the elderly for this difficulty include small or blurred numerals on price information; prices posted too low, so that they had difficulty stooping to read them;[75] and product labels with small print size.[76] As mentioned earlier, they may have difficulty with ingredient listings. However, one study found elderly food shoppers were among the least influenced by labelling information.[77]

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[72] Ibid.

[73] Ibid., p. 44.

[74] Alberta Council on Aging and Alberta Consumer Affairs, The Consumer Concerns of Alberta's Senior Citizens, Final Report and Recommendations (Edmonton, August 1980), p. 7.

[75] Lambert, p. 46.

[76] Mason and Bearden, 1979, p. 363.

[77] Richard B. Smith, Judy A. Brown and Jon P. Weimer, Consumer Attitudes Toward Food Shopping and Other Shopping Aids," . Agriculture Economic Report No. 439. (Washington, D.C.: United StatesDepartment of Agriculture, October 1979), p. ii.

Quality

In the Alberta senior citizen's concern survey 38.1%, of those expressing concern about food, were concerned about the quality of food. Although 50 percent of elderly households in Mason's and Bearden's 1979 study were dissatisfied with one or more food items during the preceding twelve months, this frequency was somewhat lower than for national samples of a broader age range. But the authors note that other studies have reported a decline in dissatisfaction with increasing age. Elderly respondents expressed dissatisfaction with refrigerated foods, followed by canned goods and frozen foods.[78]

E. CONCLUSION

Of the studies reviewed in this chapter, only the Alberta Council on Aging study dealt with consumer practices and problems of Canadian senior citizens. In that study respondents were provided with thirty topics of possible concern. Food was one of the thirty.[79] Thus the food related information obtained in the Alberta seniors' concerns' survey was very limited. As food was the primary concern of the survey, further work should be done to examine food buying and senior citizens. Since pension programs, government services and the marketing environment in Canada are different from the United States, exploratory work should be done to provide background information to marketers and governments interested in Canadian seniors.

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[78] Mason and Bearden, 1979, p. 366.
[79] Alberta Council on Aging....

Many studies that have relied on published statistical data on the elderly have concluded that they are suffering from economic hardships relative to the rest of the population. But, as discussed in both this and the previous chapter the elderly are often recipients of income in kind. In addition

> ...obligations of the older person are often less than those of younger ones. In many cases children are financially independent, the house is paid for, and there is an adequate inventory of durable goods, leaving household income for basic necessities and luxury goods and services.[80]

Many studies have looked at the financial situation of the aged as a homogeneous group. The elderly are not homogeneous. Although the elderly could be segmented using many variables, one of these variables is income. Income may be used as an independent variable to see if there is a significant difference in expenditures, view of financial situation and attitude toward food prices.

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[80] Schutz et al., p. 101.

IV. METHODOLOGY

A. INTRODUCTION

The objectives of this study suggest a research design which is appropriate for exploratory and descriptive research. The second objective is directed towards: discovering ideas and insights; establishing priorities; and generating information about practical possibilities of researching specific, conjectural statements. These are all qualities of exploratory research. Detailed questionnaires or precise probability sampling are rarely used in exploratory work. Descriptive research is used for looking at the frequency of occurance, or the relationship between two variables.[1] Thus, the first, third, fourth, and fifth objectives require a descriptive approach.

As the information required by the problem is not available through secondary data sources, primary data must be obtained. Thus the objectives suggest a survey approach.

B. PRELIMINARY INTERVIEWS

Initially, professional persons, working with the elderly, were contacted to determine their views on surveying seniors and the food buying problems of the aged. To gain credibility with the respondent, the professionals suggested using personal interviews, and contacting respondents through a senior citizens' association.

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[1] Gilbert A. Churchill, Jr. Marketing Research, Methodological Foundations, 2nd edition, (Hinsdale, Illinios: The Dryden Press, 1979) p. 49.

Contact was made with seven elderly people to assertain their views on food shopping. Comments from these informal interviews were considered when designing the questionnaire.

C. THE SAMPLE

Difficulty was encountered in obtaining a list from which to draw a representative sample of elderly Edmonton residents. Pension and Statistics Canada information is confidential. No other source, from which to select respondents by age, was known. Geographic sampling was beyond the resources of the study. Thus, while recognizing the additional bias, it was decided to select from membership lists of senior organizations.

The list of senior centers compiled by the Society for the Retired and Semi-Retired, September 1979, was used.[2] The list contained ten centers. All the centers were contacted to see if a membership list could be obtained. However, some centers did not keep lists, others were not up-to-date, while a few refused access to their list.

As all centers consented to interviews being conducted on their premises, the respondents were selected from persons present at the center at a particular time. Due to the unknown bias in the sampling procedure the number of interviews was maximized within resource constraints.

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[2] Society for the Retired and Semi-Retired, "There's One Near You", mimeograph. September 1979.

Estimates of the number of active members were obtained from the administration at each center. As the number of members[3] varies considerably between centers, the sample size at each center was weighted accordingly Appendix 1, Table 8.

The interviewers were instructed to select respondents at random so that each older person at the center would have an equal chance of being selected. The interviews were completed over a minimum number of days with a maximum number of interviews per visit. In addition the interviewers were encouraged to conduct the surveys at different times during the day.

D. THE QUESTIONNAIRE

The questionnaire[4] contained close-ended and open-ended questions. Most questions were worded to be read as if they were open-ended. To facilitate coding, answers which were expected to be given frequently were placed on the questionnaire. For the few questions requiring a specific type of response the respondents were provided with a card listing the possible replies.

The questions were based on information in the literature, the preliminary interviews, and the author's interest. The following provides a brief description of the six parts of the questionnaire.

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[3] "members" is not an accurate term as some centers feature drop-in services. However, "members" will be used to refer to persons in attendance at the center.

[4] The complete questionnaire may be found in Appendix 2.

Food Buying Description

The first section was designed to describe the food buying practices. Seniors were requested to provide information on the "where" "when" and "how" of food shopping. In addition, alternative food sources were also collected. The section on shopping habits (question 12) was based on the B.C. study of shoppers' attitudes and behaviour.[5] Questions pertaining to small packages and dividing large packages were added as they were issues mentioned in the literature and reiterated by some elderly people in the preliminary interviews. The remaining points in question 12 were generally thought to reflect economizing practices.

Household Expenditure

Preliminary interviews with professionals indicated that there was a need for information on household expenditures of elderly persons. This section was included to supplement that need and to provide information on the relative importance of food and other expenditures in the budget.

Financial Situation

The third section was intended to gather information on the respondent's view of his or her financial situation. As indicated in the previous two chapters, income figures are not sufficient when looking at income adequacy, or, in this case, the issue of income as a source of food buying difficulty.

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[5] Select Standing Committee on Agriculture...

Food Prices

The topic of food prices is the fourth part of the questionnaire. This section was included to determine if elderly shoppers are aware of price changes and to get some indication of their reaction to those changes. Difficulty with food prices was expected to be reflected in cutting back or eliminating some foods.

Difficulties

This section covers the food buying difficulties aside from income and food prices. After acknowledging or disregarding the difficulty, the respondent was given the opportunity to elaborate briefly on the problem. Although the issue of optical scanners was not mentioned in the literature reviewed it was included in the questionnaire as it was thought to be a pertinent and timely topic. Respondents were given an opportunity to raise other issues in question 29. The final part of the 'Difficulties' section allowed respondents to rank their food buying concerns.

Demography

The final section requested information about the respondent. The street and avenue closest to the respondent's home was requested so as to compare the geographic distribution of respondents to the total elderly population in Edmonton.

E. THE PRETEST

The questionnaire was pretested[1] by the author, using elderly respondents. Following the pretest a few minor adjustments were made to the survey instrument. In part 12, the questions were initially statements and asked for a frequency response (most of the time, rarely, etc.). However, all respondents in the pretest disregarded the responses requested and answered "yes, "no", "sometimes", "rarely". As a result the statements were recorded as questions, to allow for the apparently more meaningful response.

In the pretest, the question pertaining to the standard of living change (question 15) reflected an assumption that seniors' living standard had changed for the worse. The pretest indicated this was an inaccurate assumption. The question was reworded in the final questionnaire.

Although the pretest indicated that respondents were reluctant to answer the direct income question, the question was retained to obtain whatever information possible. As the question was near the end of the questionnaire it was thought it would not jeopardize the entire interview.

F. THE INTERVIEW

The interviews were conducted by four experienced interviewers. All interviewers had participated, as interviewers, in at least four other studies. The interviewers attended a training session conducted by the author and were provided with an interview manual (Appendix 3). At the training session, interviewing skills were reviewed, and the questionnarie was discussed. The interviewers were provided with information to aid in selection of their sample. Each interviewer was assigned specific centers, a number of interviews to be completed at each and instructions on randomizing their sample. In addition the interviewers were instructed to: select the respondents so that each older person at the center had an equal chance of being chosen; set up a system for selection; and avoid picking only respondents who appeared friendly or interested. After each interviewer had completed a few interviews at their respective centers a debriefing session was held with all interviewers present.

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[1] The pretest is not included in the analysis.

The interviews began November 6, 1980 and were completed by December 9, 1980. During that period each interviewer was contacted by the author at least once a week. Two hundred sixty-four persons were approached. Two hundred thirty-six interviews were completed. The thirty recorded as non-participants did not participate because: they or their spouse had been interviewed; they didn't qualify; or they refused. All interviewers reported difficulty with the specific income question. At one center the administrator advised respondents not to answer the question.

G. CODING

All close-ended questions were precoded. Following completion of all questionnaires a code book was written for the remaining questions. All coding was done by the author in order to insure consistency.

H. ANALYSIS

The data were analyzed using Statistical Package for the Social Sciences (SPSS).[7] The level of measurement for most of the data was nominal. For the questions involving nominal data, responses were reported as absolute frequency and relative frequency (percent) for all classes. Cross tabulations were done to indicate the effect of the independent variable (income level) on the selected dependent variables. Chi square analysis was used to test the significance of income level on selected variables. Phi statistic and Cramer's V were used as measures of association.

Where the data was ordinal or interval, the median or mean were calculated and in certain cases the data was tabulated by absolute and relative frequencies. The Mann-Whitney U test was used to determine if the median household expenditures were the same for the two independent samples (ie. high and low income levels). All hypotheses were tested at the 0.05 level of significance.

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[7] Norman H. Nie et al., SPSS-Statistical Package for the Social Sciences 2nd. Edition (New York: McGraw-Hill Book Company, 1975.

V. ANALYSES AND RESULTS

A. SOCIOECONOMIC CHARACTERISTICS OF THE SAMPLE

Results

Two hundred thirty-six persons were interviewed. Two hundred thirty-four persons met the eligibility criteria. Seventy-seven per cent were female, with twenty-three per cent male (Appendix 1, Table 9).

The age of the respondents ranged from sixty-five years to ninety-one years. The mean age was seventy-three years; the median age seventy-two years; and the modal age sixty-five years (10.3%). Age distribution of the sample is shown in Appendix 1, Table 9.

The education level of the majority of the respondents was grade ten or less (Appendix 1, Table 9).

Most of the sample lived on their own (55.2%) or with their spouse (34.0%) (Appendix 1, Table 10).

The range of household size for the sample was one to four persons. The predominant living arrangement was reflected in household size. The modal class was one (55.2%). Six per cent of the sample lived in households of more than two persons (Appendix 1, Table 10).

The majority of the respondents rented their home (57.3%). Of those renting, forty-one per cent rented subsidized housing (Appendix 1, Table 11).

Appendix 1, Table 12 shows the respondent's, and where applicable, their spouse's sources of income. Of the 232 respondents receiving O.A.S.,[1] fifty-four per cent received G.I.S. and A.A.I.P.

Appendix 1, Table 13 separates the one and two person households according to receipt of G.I.S./A.A.I.P. Fifty-eight per cent of one person households are low income, compared to forty-four per cent of two person households.

The monthly household income ranged from one hundred and ninety dollars to five thousand dollars. The modal class was $300-$600 (52%). The net annual income ranged from 2,000 dollars 50,000 dollars. The modal class was $3,000-$6,000 (41.9%) (Appendix 1, Table 14)

Appendix 4, Figure 1 illustrates the census areas where respondents lived.

Discussion

The respondents exhibited some characteristics similar to the senior citizen population in Alberta.[2] For example: most were women; almost all received O.A.S.; and the ratio of the number receiving a supplemented pension relative to those receiving O.A.S. was very similar to the Alberta aged population. There were also some differences between the sample and Alberta's elderly population. The sample appeared to over-represent: women; those living alone; and persons renting their homes. However, the elderly Edmonton population was not used as a sampling frame. Possibly the sampling frame of senior centers in Edmonton contains relatively more women, single person households and renters. However, no information on senior center "members" is available.

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[1] Two respondents did not receive O.A.S. because they were not born in Canada and had not been living in Canada for the last ten years.

[2] As outlined in Chapter II.

The responses to both income queries are questionable. Supposedly the minimum income level for seniors, at the time of the survey was $469.43 if single and $424.19 if married.[3] Yet forty-four respondents reported a monthly household income of less than four hundred forty-five dollars. The difficulty with monthly income is asset holdings or earnings from investments are not reflected. Because of this, net annual income was asked as well. However, the annual figures failed to be of much use either. Some of the respondents did not file income tax, and by the responses given, it is possible that many did not differentiate between gross and net income. Another difficulty with the two specific income questions was non-response. Appendix 1, Table 14, in addition to summarizing the two income questions, also provides a breakdown of the nonresponses. Of the two hundred thirty-four respondents, one hundred seventy-three answered the monthly income question while only eighty-six of the total answered the net annual income question. As mentioned in Chapter IV, a low response rate was anticipated for these two questions.

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[3] Assuming they met the qualifications for O.A.S., which almost all of the respondents did.

Most of the respondents lived in the core area of the city which is typical of the aged in urban centers. There was a relatively large representation from Census Area 13. The largest senior center in the city (Strathcona) is within Census area 13. Next door to the center is a large seniors' apartment complex. Possibly, many people from the highrise complex frequent the adjacent center.

B. FOOD BUYING DESCRIPTION

Results

This description of food buying by senior citizens entails the 'where' 'when' and 'how' aspects of shopping. Senior citizens in this study tended to spend most of their grocery money at Safeway (59.8%), followed by Woodwards (23.1%). The main reason for selecting any of stores was proximity to home (55.6%). Fifteen per cent selected the store, where they did the majority of their shopping, on the basis of price of merchandise. Prices were a more common reason given by Safeway shoppers (17.9%) than by Woodward's shoppers (7.4%) (Appendix 1, Table 15).

Seventy-two percent of the respondents used sources other than their main store for purchasing groceries. Those with other sources tended to use supermarkets aside from their main store (65.5%). Some seniors used sources other than grocery stores. Slightly more than one third had a garden during the previous summer (35.5%). Fifty-seven percent ate at a seniors' organization at least once a week.

Meals were purchased at a restaurant or cafeteria by 67.1% at least once a month. Most respondents ate meals at friends or relatives at least once a month (72.6%). There was very little use of Meals on Wheels by the sample (Appendix 1, Table 16).

Most respondents made their major food purchase one to three times a week (64.1%). The mean for total food shopping trips was 2.3 times per week (Appendix 1, Table 17).

The principal mode of transportation was personal vehicle (32.1%), followed by walking (28.2%) and bus (25.6%). The respondents travelled a mean distance of 11.3 blocks to do their food shopping (median = 5.8 blocks). Only 1 percent had their groceries delivered to their home. (Appendix 1, Table 18).

Most respondents did not have a particular day for their shopping. However, if they did it was Thursday, Friday or Saturday (Appendix 1, Table 19).

Most respondents had a preferred time of day for food shopping (77.7%). Of those with a favourite time of day, sixty-four percent preferred the morning. Evening was not a popular time for the elderly food shoppers interviewed (Appendix 1, Table 19).

Appendix 1, Table 20 outlines the shopping habits of these respondents. The majority of the respondents: shopped alone; used a shopping list; looked at unit prices; stored items at home when on special; and compared prices. The respondents tended not to shop around for specials, buy large or family size packages, or request packages be divided.

Discussion

Seniors possibly chose their store on the basis of proximity to home due to: limited mobility; a desire to patronize local merchants; or believing little price variability existed between stores and the expenses (tangible or intangible) of travel could not justify travelling further.

A main reason for choosing Woodwards, which was not evident with other stores, was bus. All Woodwards stores in Edmonton are located in shopping centers and are readily accessible by bus. As mentioned (Chapter II) seniors in Edmonton may purchase a lifetime bus pass for five dollars.

The seniors in this sample had adapted to modern shopping, as they were predominately supermarket shoppers. Even persons who obtain their food from more than one store tended to frequent supermarkets. Contrary to Swartz,[4] who found the elderly used speciality stores as alternative food stores, almost no mention was made of use of speciality stores.

As the respondents were interviewed at senior centers it was not surprising the majority ate at least once a week at a senior citizen organization. Probably the ratio would be lower for a sample from the total Edmonton aged population.

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[4] Swartz, p. 341.

Use of Meals on Wheels was expected to be low as this service is usually provided to the home bound. The respondents, being senior center visitors, were likely to be the more mobile aged.

The respondents appeared to be frequent food shoppers. However, a comparative study would need to be done to ascertain if seniors are more frequent shoppers than other age groups.

As indicated in the literature review personal car, walking and bus were the most common transportation modes. The popularity of walking may have been related to frequency of shopping, and the choice of store based on proximity to home.

Delivery of nonperishables is available to senior citizens from a major supermarket for a nominal fee. Yet very few used a delivery service. The reason for low usage may be: they would need to shop for perishables in any case; they enjoy the shopping trip; they can't afford or justify the fee; they are unaware of the service; or they prefer not to shop at that particular store.

The day and time of day for shopping is similar to the results reported in the literature. The lack of a particular day for many may be tied to mobility. If the shopper walks they would probably make frequent trips as needed. Also, walking and bus usage may be affected by the weather and thus the shopper may choose a day based on the weather.

The reasons suggested earlier as to why seniors shop at a nearby store, may also explain why they don't shop around for specials. As the cost of transportation increases shopping around for specials becomes less of an economizing feature.

This sample did not have a distinct tendency for the factor "brand loyalty". Lack of distinct brand loyalty is in contrast to the reports in the literature which have often found seniors to be a very brand loyal segment. However, the questions in the literature appear not to have mentioned a price differential between the brands. Possibly seniors will not try a different brand just to be experimental, but will if there is a price differential. Another consideration may be the dominant position of Safeway in Edmonton. Safeway tends to carry a large array of private labels and devote a smaller portion of shelf space to national brands. Most respondents were Safeway shoppers. The availability of national brands where most respondents shopped, may have affected the likelihood of brand loyalty being expressed. On the other hand, it may be possible for brand loyalty to occur for private brands.

Coupon usage was another factor which the sample didn't show a distinct tendency. The total who didn't or rarely used coupons (51.7%) was comparable to Mason and Beardens results which indicated that 46.3% of their sample seldom or never use coupons.[5] Mason and Bearden considered their results low usage relative to the total American population.

Most respondents tended to prefer smaller size packages (47% buy or sometimes buy large packages, compared to 58.1% who buy or sometimes buy small packages). Small packages may have been preferred due to: less waste; more opportunity for variety; lack of storage space; and budgets which didn't allow for bulk buying. Although small packages may cost more, benefit may be gained through a more varied diet, which is usually regarded as the key to good nutrition.

Generally the seniors in this sample appeared to be price conscious when they shopped. Most compared prices; read the food advertisements; stored sale items at home; checked unit prices; and switched brands if prices were lower.

C. FOOD BUYING DIFFICULTIES

Potential reasons for food buying difficulties for seniors were hypothesized in Chapter I and reviewed in Chapter III. This section outlines the results obtained from the fifth section of the questionnaire.[6]

Results

Health Problems Thirty-three percent of the respondents indicated a health problem which limited the foods they could eat. The foods limited were mainly related to diabetes, or were fried and salted foods. Sixteen percent, of the respondents expressing a food limitation due to health, felt it caused a problem when buying and selecting food. The most common reason for their health problem causing them a buying problem was "having to read labels".

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[5] Mason and Bearden, 1978, p. 458.

[6] Appendix 1, Table 21 outlines responses to the basic questions for the fifth section. Financial situation and food prices will be discussed individually in later sections.

Physical Problems Physical difficulties caused some buying problem for sixteen percent of respondents. One third, of the respondents with physical difficulties, "trouble walking". The next most common explanations of the difficulty experienced were "arthritis", "trouble carrying things" and "hand problems".

Store Design The design of the store caused difficulties for four percent of respondents. A few of those respondents mentioned having difficulty locating foods because of the items being changed, and the store being designed so customers must walk further.

Store Service Store service caused problems for seven percent of respondents. The main problem expressed was "slow line-ups". Another reason given was "mistakes at the cash register". A few repondents commented tthat they "insist on meat being cut the way I like it" and "there is no service, customers must help themselves".

Package Size Twenty-six percent of the sample stated that they had difficulty finding food packaged in suitable sizes. Slightly more than half of them would still buy the package if the size was inconvenient. Sixty-eight percent of the respondents expressing difficulty with package sizes indicated that they would be willing to pay a few cents more for a more convenient size. The respondents stated that the products which caused the most difficulty with package size were: meat; bakery and cereal products; and vegetables. Almost all respondents that expressed problems with package size felt the sizes were too large.

Packaging The way foods are packaged created problems for twenty percent of the seniors interviewed. The reasons given for this problem were: some packages are "difficult to open" (such as milk cartons, canned pop and juices, and jam); "fancy packages cost more"; "too much packaging is wasteful"; and "meat packaging is deceiving" (such as fat hidden on the bottom).

Pricing Store pricing methods were sources of problems for thirty-one percent. Price not being on the article was the principal complaint. In addition, a request for individual prices on the article, and not being able to see the prices were other common complaints.

Fifty-four percent had heard of optical scanners. Of those: seventeen percent didn't like them because they didn't know the price; fourteen percent had no opinion; and twelve percent liked them.

Labelling Twenty percent of the respondents expressed difficulty with labelling. Almost half were critical of French on labels especially when the French side faced out on the shelves. Other comments were: complaints about metric labelling (12.8%); labels were hard to distinguish (12.8%) and complaints about price markings (10.6%).

Quality Many respondents expressed concern about quality (36.3%). Most comments were related to "look for quality" rather than complaints about the quality of food. Of the respondents concerned about quality the most common items that gave rise to concern were fruit, vegetables, and meat.

Storage Most respondents felt that they had adequate storage space in their home. However, some had insufficient space for canned goods (8.1%); frozen foods (9.0%) and refrigerated foods (5.5%).

Discussion

Respondents were provided with an opportunity to rank their concerns. To place a value on the extent of concern, each primary concern was coded as five, the secondary concern as four, etc. For each potential difficulty the product of the code and the absolute frequency was summed to obtain a measurement of concern. Using the resultant figure the concerns are listed in order in Appendix 1, Table 22. The top five concerns were: food prices; quality; pricing; packaging; and income. The issues of food prices, quality, and labelling appeared in the same order as in the Alberta Council on Aging Survey. However, in this survey, where more potential areas of concern were suggested--pricing methods, packaging, income, health and package size were felt to be of greater concern than labelling.

The food quality question was intended to indicate whether respondents were critical of the quality of the food they found in food stores. Instead, the responses to the open-ended portion of the quality question, indicated that most respondents interpreted the question as "are you quality conscious when you buy?".

The rankings and responses suggest physical problems, home storage, store design and store service are relatively minor issues.

Appendix 1, Table 23 provides the ranking of concerns when separated by low/high income levels. As with the total sample - design, service, storage and other - were considered relatively minor concerns. Both groups ranked the first three concerns as food prices, quality and pricing methods. As may be expected the higher income groups considered income of less concern than did the lower income group.

D. HOUSEHOLD EXPENDITURE

Results

Respondent's previous month's expenditures are tabulated in Appendix 1, Table 24 using median values to minimize the effect of a skewed distribution. The median household income for the same month is also indicated in the table ($599.71). From the income and expenditure information the percent of income spent on each area is indicated.

Those respondents owning their own home reported a value of $0 for their monthly shelter expenditure.

The "other major expenditure" consists of other household expenditures identified by the respondents. The principal categories mentioned were: taxes; long distance telephone charges; medicine; and church and charity.

The results indicate that the respondents in this sample spent: seventeen percent of their monthly income on shelter; approximately the same on food; three percent on household operation; less than two percent on food away from home; and less than one percent on each of clothing, travel and transportation, recreation, and other major expenditures. The total of these expenditures accounted for forty percent of the previous month's income.

Because of eligibility requirements, seniors receiving G.I.S. are on a lower income than those not on G.I.S. (assuming everyone eligible applies). According to Engel's law the portion of income spent on food and other basic needs decreases as income increases. Thus household expenditures are assumed to take a greater portion of household income for low income persons than for higher income persons. As expenditures are related to household size, households of one person and households of two persons are separated and the median expenditure for each income level is calculated. Appendix 1, Table 25 provides the results.

The Mann-Whitney U test was used to compare the expenditures for the two income levels. For each household size the null hypothesis being tested was:

> The portion of household income spent on each component of household expenditure (and total household expenditure) is the same for low income and high income households.

For households of one person the null hypothesis was rejected for shelter and recreation at the 0.05 level of significance. Thus there was a significant difference between the amount spent in these areas for low income and higher income respondents. There was no significant difference (at the 0.05 level of significance) between the two groups for the amount spent on food at home, food away from home, clothing, travel and transportation, household operation or other major expenses. The null hypothesis was rejected for monthly income as there was a significant difference between the two groups at the 0.05 level of significance.

For households of two persons, the null hypothesis was rejected only for monthly income. For the expenditures there was no significant difference (at the 0.05 level of significance) between the two income groups. The difference between monthly income for recipients of G.I.S./A.A.I.P. and non-recipients was significant at the 0.05 level of significance (Appendix 1, Table 25).

Discussion

Consistent with Engel's law, the lower income group had less discretionary income (both on an absolute and relative basis) than did higher income groups. Single person households on a low income had the least discretionary income followed by single persons on higher incomes, two person households on low incomes and finally two persons on higher incomes. The discretionary portion of income, for households of two persons on a low income, may have been greater than for single person higher income households, due to home ownership and/or economies of scale.

The respondents spent less on shelter than would be expected, considering the expenditure information in Appendix 1, Table 3 and the level of rents in Edmonton. However sixty-six percent of the sample either owned their home or their rent was subsidized (Appendix 1, Table 11). Referring to Appendix 1, Table 25 households of two persons were affected more by home ownership.

As mentioned, there was no significant difference in food at home expenditures for either group, while incomes were significantly different. This finding suggests, for this sample, income had little effect on food expenditure. It is possible that seniors have established buying patterns and tastes over the years and are relatively inflexible in their food buying habits.

The limitations of this expenditure analysis should be mentioned. The data is based on the respondent's recall of their previous month's expenditures, and not on an expenditure record. As mentioned in an earlier section, the responses to the monthly income question were questionable and sparse. If the respondents who refused to answer the income question were of a common income level, this would affect the foregoing results. Investment may be a major factor, especially for those not receiving G.I.S./A.A.I.P.. Thus median monthly income for the higher income level may have been underestimated. Households of two persons, classified in the low income group, were classified on the basis of the respondent receiving G.I.S./A.A.I.P.. It is possible that the second person in the household was in a different financial situation. However, as the test of the hypothesis employed a difference of medians test (the Mann-Whitney U test), limitations related to the median monthly income would not affect the hypothesis testing.

E. FINANCIAL SITUATION

Results

"Financial situation" is defined as the areas of the questionnaire which describe the respondent's current financial situation, anticipate the result of a fifty dollar increase or decrease in monthly income, and contrast the respondent's current standard of living to when the respondent was less than 65 years of age.

For each of the above mentioned variables the results were tabulated for the sample and were separated by income level. The chi-square test of significance was used on the separated data whenever the expected cell frequencies were large enough for the test to be employed. The null hypothesis being tested for each financial situation criterion was:

> There is no difference in the response for low income and high income households.

The phi test or Cramer's V test were used as measures of association.

The results for the Financial Situation are presented in Appendix 1, Table 26. The results broken down by income group are presented in Appendix 1, Table 27.

Description of Current Financial Situation Five percent of the respondents indicated that they did not have enough money for their needs. The respondents, with not enough money, indicated that the main items they were unable to buy were clothing (54.5%) and food (18.2%). A greater percentage of the higher income group were able to buy for their needs as well as some or most of the things they would like to have (80.3%) compared to the lower income group (62.4%). Assuming enough money for needs plus some other items is an adequate financial situation, then seventy-one percent of the respondents felt their financial situation was adequate.

The Chi-square test of significance indicated that the null hypothesis should be rejected at the 0.05 level. Thus there was a significant difference in the description of current financial situation for low income and high income households. A Cramer's V figure of 0.24374 indicated some association present between income group and description of current financial situation.

Result of a $50 Monthly Income Increase If the respondents were provided with a fifty dollar monthly income increase, while prices remained constant, most would: save the money (33.8%); use it for a holiday (11.4%); or buy clothes (10.1%). Respondents were almost as likely to give the increase to relatives (6.6%) as buy groceries with the increase (7.5%).

Both low income and high income respondents expected they would save the money (34.4%, 33.0%) or take a trip (12.0%, 10.7%). Following those suggestions low income respondents anticipated they would: buy clothes (12.0%); buy groceries (9.6%); or give the money to relatives (9.0%). Higher income repondents indicated: they would spend the money (11.6%); it would make no difference (7.8%); or they would buy clothes (7.8%) - aside from saving or travelling.

Chi-square test could not be used to test if there was a significant response difference between the two groups, as the expected cell frequencies were not large enough.

Result of a $50 Monthly Income Decrease If the respondents monthly income were decreased by fifty dollars, with prices constant, forty-seven percent of the sample felt it would not make any difference; they had enough to manage; or they could take from their savings. Thirty-five percent would budget or reduce other expenditures. Six percent of the total specifically mentioned budgeting groceries.

When broken down by income group, fifty-seven percent of the high income respondents said it would make no difference, they had enough to manage or they could take from savings, compared to thirty-eight percent of the low income group. Of the high income group twenty-six percent felt an income cut would necessitate reducing other expenditures, compared to forty-three percent of the low income group.

Again Chi-square tests could not be done due to expected cell frequencies being too small.

Change in Standard of Living The majority of the respondents (58.4%) had not noticed any changes in their standard of living since they turned 65 years of age. Of those who had noticed a change, the most common description of the changes were: cost of living increased (16.5%); life is better (14.4%); and lower income (8.2%). Thirty-one percent indicated a favourable improvement (ie. life is better, more leisure time, more money now, and easier).

Fifty-two percent of the low income group had noticed a change in their standard of living compared to thirty percent of the higher income group. The Chi-square test of significance indicated the null hypothesis should be rejected at the 0.05 level of significance. Thus, for low income and high income groups, there was a significant difference in the respondents' responses to noticing a change in their standard of living since turning 65 years of age.

Of those low income respondents who noticed a change most mentioned: cost of living increase (18.5%); life is better (12.3%); and no longer working (9.2%). For those in the higher income group who noticed a change, the most frequent comments were: life is better (18.8%); cost of living increased (12.5%); lower income (9.4%); more money now (9.4%); and 4buy less have to budget (9.4%). Chi-square could not be used to test the significance of the results because of some low cell frequencies.

If the same criteria as above are used to define a favourable improvement in the standard of living, then twenty-six percent of the low income group mentioned a favourable improvement compared to forty-one percent of the high income group.

Discussion

Generally, most respondents had adequate financial resources. Many respondents had: more than enough money to meet their needs; did not foresee an income increase being used for food; did not see a decrease as making very much difference; and had not noticed a change in their standard of living since reaching 65 years of age. However, these indications were for the total sample.

Low income respondents were more likely to have insufficient funds; and to have noticed a change in their standard of living, than high income respondents.

F. FOOD PRICES

Results

"Food prices" is defined as the areas of the questionnaire which questioned: whether price changes had been noticed; whether price changes concerned the respondent; whether consumption of any foods had been eliminated or cut-down because of price increases; and whether consumption of any foods had increased as a result.

For each of the above mentioned variables the results were tabulated for the sample and separated by income level. The Chi-square test of significance was used on the separated data whenever the expected cell frequencies were large enough for the test to be employed. The null hypothesis being tested for each food price criterion was:

> There is no difference in the response for low income and high income households.

The phi test and Cramer's V test were used as measures of association.

The total sample results for Food Prices are presented in Appendix 1, Table 28. The results broken down by income group are presented in Appendix 1, Table 29.

Price Changes Noticed Almost all respondents noticed food price changes in the previous year (97.4%). When giving examples of where price changes had been noticed, only a few mentioned items which had decreased (eg. coffee). The food groups most often mentioned as having had price increases were: meat; dairy products; and bakery and cereal products.

Concern About Price Changes. Most respondents (66.2%) were concerned about the price changes (ie. increases). The main reasons for concern were: when will it stop? (19.6%); concern for others (13.7%); and I manage (6.4%). The main responses for those not concerned about the price changes were: still buy what I want/need (29.5%); have enough to manage (16.7%); I manage (6.4%); and nothing I can do (6.4%).

The Chi-square tests indicated the null hypthesis could not be rejected. Thus, there was no significant difference in presence of concern about price changes, for low income and high income households.

Change in Consumption Patterns Due to Price Increases Most respondents had not eliminated or cut down on any foods because of increased food prices during the previous six months (70.4%). Those who had eliminated some foods had primarily eliminated certain foods in the dairy products group and certain foods in the meat group. Those who had cut down had done so primarily in meats and fruits. Of the respondents who had eliminated or cut down consumption of some foods, most had increased consumption of other foods (55.1%). The food groups where consumption had increased were mainly vegetables, bakery and cereal products, and poultry.

The Chi-square test, at the 0.05 level of significance, indicated that the null hypothesis should not be rejected. Thus there was no significant difference in eliminating or cutting down foods due to food price increases, for low income and high income households.

Discussion

If individuals were having difficulty with rising food prices it is possible that lower income persons would be expected to have the greatest difficulty. Yet these results indicate that there was no difference, between high income and low income respondents, in the expression of concern about food price changes.

If individuals were having difficulty with rising food prices, possibly they would adjust their buying habits by eliminating or cutting down some foods. Yet these results suggest most respondents are not adjusting the foods they buy.

If the respondents had cut down or eliminated foods, there may be reason for concern about the nutritional adequacy of their diet. However, most respondents who had cut back consumption of certain foods, had increased their consumption of other foods. It is possible that substitutions were not nutritionally suitable. However, many respondents commented that they eliminated certain meats (eg. prime rib roast), vegetables (eg. cauliflower), and fruits (eg. bananas) while increasing other meats (eg. ground beef), vegetables (eg. carrots) and fruits (eg. apples).

Therefore, although respondents indicated food prices concerned them (as indicated in this section and in the earlier section where concerns were ranked), the expression of concern is not sufficient to conclude that this sample of seniors are in difficulty due to food prices.

VI. SUMMARY, LIMITATIONS, IMPLICATIONS AND RECOMMENDATIONS

A. SUMMARY

Rising food prices, relatively low incomes for senior citizens, and the increasing number of older persons suggested the need for a study to describe the food buying practices and problems of the elderly.

Four experienced interviewers selected 236 elderly respondents from a sampling frame of ten senior centers in Edmonton. A questionnaire, consisting mainly of open-ended questions, was used as the survey instrument. The questionnaire covered five areas: food buying description; household expenditure; financial situation; food buying difficulties; and socio-economic information. Aspects of food buying difficulty examined, included: health problems; physical problems; store design; store service; package size; packaging; pricing; labelling; quality; and home storage. Respondents were given an opportunity to rank these difficulties in addition to food prices and income - by order of concern. Household expenditures, view of personal financial situation and concern about food prices were analyzed to determine if these issues were related to income level. Income level was defined as receipt (high income level) or non-receipt (low income level) of G.I.S./A.A.I.P.

Elderly visitors to senior centers tended to be supermarket shoppers. They usually shopped for their major purchase in the morning at least once a week. Personal vehicle, walking and bus, were all popular modes of transportation. Most chose their major store based on closeness to home, and travelled less than a mile for groceries. The elderly food shoppers were inclined to: use a shopping list; look at unit prices; store items at home when on special; and compare prices. They tended not to: shop around for specials; buy large or family size packages; or request packages be divided.

The areas most often identified as causing food buying difficulty were (respectively): food quality; pricing methods; package sizes; labelling; and packaging. When the difficulties were ranked (along with food prices and income) the problem areas were: food prices; food quality; pricing methods; packaging; and income.

Expenditure on shelter, food at home, food away from home, clothing, travel and transportation, recreation, and household operation accounted for 40 percent of household expenditure. Of the seniors' monthly income, 16.7 percent was spent on food. For households of one person, shelter and recreation expenditures were related to income level. Food and the other household expenditure components were not related to income level. There was no significant difference between any of the household expenditures and income level for two person households.

Senior citizens at senior centers generally appeared to have enough money to meet their needs. If given a $50 monthly income increase most would: save the money; use it for a holiday; or for clothes. If their income decreased by the same amount, most said: it would not make any difference; they would manage; or they could take from their savings. The majority had not noticed a change in their standard of living since turning 65 years of age. View of personal financial situation was related to income level. This relationship was shown by a significant difference between income groups for: description of current financial situation; and a change of standard of living since turning 65 years of age.

Almost all seniors attending senior centers had noticed food price changes in the last year, especially price increases. Most claimed to be concerned about price changes yet few had eliminated or cut down on foods due to price increases. If they had reduced their consumption levels of some foods, most had increased their consumption of other foods. When commenting on their reason for concern about price changes, the most common responses were: when will it stop; concern for others; and I manage. Concern about food prices was not related to income level, as there was not a significant difference between income groups based on an expressed concern about price changes or based on eliminating or cutting down on foods due to price increases.

B. LIMITATIONS OF THE STUDY

The sample was drawn from senior centers located in Edmonton. Some services available to seniors are essentially income in kind. Since these services may vary between locales and as marketing environments may vary as well, the findings from this study cannot necessarily be extrapolated to other regions.

The sampling frame included only those elderly persons who frequent senior centers. Possible sources of bias included interviewer selection of respondents, and "members" of centers possessing traits found to a greater or lesser extent in the Edmonton elderly population. For example, seniors who visit senior centers may be more mobile, sociable or active than seniors in general. Thus any conclusions pertain only to this sample and cannot be inferred to the total elderly population.

Respondents may have been unwilling to admit difficulty (leading to under-estimation in the analysis) or may have exaggerated difficulties (causing over-estimation).

The study only dealt with one independent variable in the analysis - receipt of G.I.S./A.A.I.P. A limitation is the assumption identifying G.I.S./A.A.I.P. recipients as low income respondents.

C. IMPLICATIONS

The following implications are suggested from this study.

1. The examples that seniors gave of changes in their standard of living since turning 65 years of age, suggest that many judge their living standard by more than monetary measures. Policy instruments which use only cash grants may be incomplete means of affecting the well being of seniors.
2. Further development of small packages by the food industry may be a lucrative market. The number of small households in general, suggest the small package size as a potential growth area. Concern expressed about package sizes plus indications of use of small sizes suggest seniors would possibly prefer to use more smaller packages if available. The foods currently unavailable in small packages are mostly perishable foods. Although most stores will split portions of perishables if requested, indications from the descriptive section are that few request this service. Fewer pieces or pounds in a package, smaller loaves of bread, fewer buns in bags, smaller boxes of cereals, smaller packages of cheeses (including cottage cheese), greater availability of bulk buying of vegetables such as onions, potatoes, carrots and celery,--could all be considered. Of those wanting smaller sizes most respondents appear to be willing to pay a few cents more for the feature. For the retailer there may be an opportunity for increased sales from customers making more trips to the store. The

advantages of smaller packages to seniors may be a more varied diet and less grocery weight to carry.

3. Although most of the elderly visiting senior centers were concerned about price changes, few had eliminated or cut down on foods due to the changes in price. Possibly they had already made buying adjustments, their food buying was established, or substitutions were being made which were not viewed as eliminating or cutting down. As a precaution educational programs to inform the public about substituting foods should be introduced. Such programs on substituting foods may help to ensure nutritionally suitable substitutions are being made.

4. The elderly should be considered by package designers. Difficulty handling things, and packaging problems were mentioned by seniors attending senior centers. These active seniors may have fewer physical problems than many in their age group. Therefore difficulty with packaging may be compounded in the senior population at large.

D. RECOMMENDATIONS

The following recommendations for research are suggested from this study.

1. As this work focused on the active, sociable, mobile senior citizen further work should be attempted on other senior groups possibly more prone to difficulty. One example is the elderly shut-in, or the less mobile aged. A second group is elderly persons who rent housing commercially or

who are paying mortgages. Inquiries should be made to determine whether persons who are not homeowners or subsidized renters are having difficulty with finances which may be affecting their food purchasing.

2. When seniors were requested to provide examples of foods, there was essentially no mention made of frozen foods. Possibly seniors are infrequent users of frozen foods. Frozen foods are often a nutritional and convenient food form. Inquiry into the use of frozen foods by seniors may be useful to food marketers, nutritionists, and educators.

3. Work on the adequacy of senior's incomes relative to other age groups should consider other factors besides income received. The elderly's decreased level of expenditure (not necessarily due to lower incomes), asset holdings, and income in kind should be taken into consideration.

4. The Consumer Price Index probably does not reflect buying practices of the elderly. Whereas this study found seniors at senior centers in Edmonton to be users of small packages, the CPI does not reflect the extra expenditure usually charged for small packages. At the same time, most seniors spend relatively little for housing as many are homeowners or are in subsidized housing. Further research should be done to see whether the CPI in the aggregate tends to over or under estimate the cost of living for seniors.

5. Research into food issues and the elderly should take an interdisciplinary approach. To get a clearer picture of food

difficulties of the aged, factors such as "aloneness" and nutritional knowledge should be considered.

This study provides a starting point for further investigation into the elderly food market. Results suggest the idea of older persons living on "tea and toast" due to income is probably inaccurate. Indications of this study were, that increases in income for seniors will not necessarily affect the food budget and that concern about food prices, does not necessarily indicate the concern is causing hardship.

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APPENDIX 1 - TABLES

TABLE 1

EXPENDITURES ON FOOD, BEVERAGES AND TOBACCO AS A PERCENTAGE OF PERSONAL DISPOSABLE INCOME, SELECTED COUNTRIES, 1968-1977

Country	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977
Canada	21.25	20.97	21.17	20.65	20.17	19.78	19.20	19.25	18.65	18.40
United States	17.38	17.25	17.15	16.27	16.06	15.88	16.41	16.22	15.82	15.42
Japan	-	-	24.61	23.85	22.89	22.06	21.51	22.31	22.12	21.93
Australia	26.42	25.99	24.98	24.16	23.06	22.26	21.24	21.24	21.08	21.32
Austria	31.94	31.40	30.66	29.65	28.71	29.01	27.25	26.21	25.57	25.29
Belgium	27.25	26.67	26.05	25.21	24.36	23.88	22.96	22.53	22.12	21.48
Denmark	27.83	26.11	27.36	27.60	26.41	26.56	27.04	25.80	25.70	-
Finland	35.69	35.82	34.78	33.74	33.84	33.13	30.38	31.37	33.76	34.02
France	-	-	23.68	22.66	22.28	21.80	21.27	20.56	20.61	20.52
Germany	26.63	26.19	24.63	24.22	24.31	24.51	24.01	23.55	23.74	-
Greece	39.72	38.44	36.47	34.06	34.05	33.75	36.37	-	-	-
Italy	-	-	33.08	31.39	30.37	30.26	30.21	28.34	28.43	27.58
Netherlands	26.74	25.42	24.09	23.01	22.78	22.04	20.63	20.62	19.70	19.37
Portugal	46.51	47.67	46.59	44.75	41.40	40.15	43.03	44.53	44.58	-
Spain	-	-	32.25	31.42	30.23	29.70	29.76	29.51	-	-
Sweden	28.47	27.60	27.18	26.99	27.33	26.72	25.16	24.67	24.88	24.30
Switzerland	28.32	27.79	25.13	25.71	25.72	25.24	24.36	25.39	-	-
United Kingdom	31.96	32.06	31.29	30.53	28.58	28.52	27.97	27.95	28.26	28.63

SOURCE: Zuhair A. Hassan and Danielle Karamchandani.
Handbook of Food Expenditures, Prices and Consumption
(Ottawa: Agriculture Canada, Information Division, November 1980).

TABLE 2

AVERAGE INCOME BY AGE GROUP FOR 1977
($)

	Economic family	Unattached Individual
24	15455	7191
25-34	19178	11498
35-44	22412	12734
45-54	24478	10301
55-64	20686	8159
65-69	13973	5675
70+	11217	4813
all	20101	8254

SOURCE: Statistics Canada

TABLE 3

HOUSEHOLD EXPENDITURES AS A PERCENT OF TOTAL EXPENDITURE (%)

	FOOD	SHELTER	TRAVEL & TRANSPORTATION	CLOTHING	OTHER	TOTAL
UNATTACHED INDIVIDUALS						
less than 45 years of age	14.1%	18.7%	11.7%	6.1%	49.4%	100%
45-64	13.9	19.6	9.1	4.7	52.7	100
65 and over	20.7	30.5	7.5	4.5	36.8	100
MARRIED COUPLES *						
husband less than 45 years of age	13.2-16.6%	15.3-17.1%	11.7-13.8%	6.3-7.6	44.9-53.5%	100%
45-64	14.9-17.1	12.5	12.8-12.9	7.0-8.2	49.3-52.8	100
65 and over	19.9	20.3	12.3	6.1	41.4	100

SOURCE: Statistics Canada, Urban Family Expenditure 1976, Catalogue 62-547.

*range due to number and age of children.

TABLE 4

PERCENTAGE OF POPULATION AGED 65 YEARS AND OVER, CANADA AND THE PROVINCES, 1971 and 1976

	% of Population 65+, 1971	1971 Rank	% of Population 65+, 1976	1976 Rank
Newfoundland	6.14	10	6.55	10
Prince Edward Island	11.06	1	11.20	1
New Brunswick	9.19	5	9.02	6
Nova Scotia	8.62	6	9.74	5
Quebec	6.85	9	7.72	8
Ontario	8.37	7	8.04	7
Manitoba	9.67	3	10.43	3
Saskatchewan	10.24	2	11.09	2
Alberta	7.29	8	7.50	9
British Columbia	9.38	4	9.81	4
Yukon	2.83	11	2.91	11
Northwest Territories	2.17	12	2.66	12
Canada	8.09		8.71	

SOURCE: Mary Englemann and Carol Stevenson,
Profile of Older Persons in Alberta: Demographic Characteristics and Service Utilization
Staff Working Paper #1 (Edmonton: Alberta Social Services and Community Health, February 1980), p. 31.

TABLE 5

ELDERLY POPULATION BY SEX AND AGE, 1976

	Canada			Alberta			Metro Edmonton		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
65-69	338520	382300	720815	23920	24555	48480	5935	6745	12685
70-74	241365	292360	533725	18360	18685	37045	4310	5210	9520
75-79	150430	212275	362705	11270	13300	24570	2725	3610	6335
80-84	85250	135310	220560	6745	8555	15300	1540	2380	3915
85-89	41475	70900	112380	3785	4785	8570	890	1355	2245
90+	18365	33795	52160	1665	2300	3960	410	650	1060
TOTAL	875405	1126940	2002345	65745	72180	137925	15810	19950	35760
(%)	(43.7%)	(56.3%)		(47.7%)	(52.3%)		(44.2%)	(55.8%)	

SOURCE: Census of Canada 1976.

TABLE 6

LIVING ARRANGEMENT OF THE ELDERLY IN ALBERTA (%)

	Male	Female	Total
living alone	14.5%	31.4%	23.3%
nuclear family	60.8	34.3	47.0
other*	24.7	34.3%	29.7

SOURCE: Mary Englemann and Carol Stevenson, Profile of Older Persons in Alberta: Demographic Characteristics and Service Utilization Staff Working Paper #1 (Edmonton: Alberta Social Services and Community Health, February 1980), p. 43.
*other = extended family or non-family.

TABLE 7

MINIMUM INCOME LEVELS FOR OLD AGE SECURITY RECIPIENTS
OCTOBER 1, 1980

	Single	Married*
O.A.S.	$196.83	$196.83
G.I.S. (maximum)	194.60	152.36
A.A.I.P. (maximum)	75.00	75.00
TOTAL	466.43	424.19

SOURCE: Alberta Social Services and Community Health, "Senior Citizens Bureau Fact Sheet", September 1980.
* both persons recipients of O.A.S.

TABLE 8

INTERVIEWS COMPLETED AT EACH SENIOR CENTER

Center	Sample Size
Alex Taylor Drop-In Center 9321 Jasper Avenue	2
Brighton Seniors 10005-84 Street	6
Central Lions Senior Citizens Recreation Center 11113-113 Street	41
Edmonton Northgate Lions Senior Citizens Recreation Centre 13824-74 Street	16
Jewish Senior Citizens Center 10052-117 Street	4
Operation Friendship-McCauley Center 10628-96 Street	13
SCONA 10440-84 Avenue	7
Society for the Retired and Semi-Retired 10004-105 Street	41
Strathcona Place 10831 University Avenue	82
West Edmonton Seniors 11353 Jasper Avenue	24

TABLE 9

PERSONAL INFORMATION

a) Sex

	Absolute Frequency	Relative Frequency (per cent)
Male	53	22.6
Female	181	77.4

Valid Cases = 234

b) Age

	Absolute Frequency	Relative Frequency (per cent)
65-69	82	35.2
70-74	70	30.0
75-79	49	21.0
80-84	23	9.9
85-89	6	2.6
90-94	3	1.3

Valid Cases = 233 Mean = 72.7 Standard Deviation = 6.0

TABLE 9 cont.

c) Education

	Absolute Frequency	Relative Frequency
		(per cent)
less than grade 5	23	9.9
grade 5 to 8	68	29.3
grade 9 to 10	33	14.2
grade 11 to 13	57	24.6
some post secondary, non university	11	4.7
completed post secondary, non university	8	3.5
some university	11	4.7
completed university	21	9.1

Valid cases = 232

TABLE 10

HOUSEHOLD INFORMATION

a) Household Size

	Absolute Frequency	Relative Frequency (per cent)
1 person	128	55.2
2 persons	90	38.8
3 persons	10	4.3
4 persons	4	1.7

Valid Cases = 232

b) Living Arrangement

	Absolute Frequency	Relative Frequency
alone*	128	55.2
with spouse	79	34.0
with relative(s)**	16	6.9
with friend(s)	3	1.3
other	6	2.6

Valid cases = 232

*Length of time lived alone: Mean = 13.5
Standard Deviation = 12.3

**Includes with spouse and children

TABLE 11

HOUSING

a) Residence

	Absolute Frequency	Relative Frequency
		(per cent)
rent	134	57.3
own	100	42.7

Valid cases = 234

b) Subsidized Rent

	Absolute Frequency	Relative Frequency
yes	55	41.0
no	69	51.5
no answer	10	7.5

Valid cases = 134

TABLE 12

SOURCES FROM WHERE INCOME RECEIVED

	Self		Spouse	
	Absolute Frequency	Relative Frequency	Absolute Frequency	Relative Frequency
		(per cent)		(per cent)
Old Age Security	232	99.1	67	83.7
Guaranteed Income Supplement	126	53.8	30	37.5
Alberta Assured Income Plan	126	53.8	30	37.5
Canada Pension Plan	142	60.7	40	50.0
Spouse's Allowance	0	0.0	1	1.2
Investment	119	50.9	36	45.0
Retirement Pension	61	26.1	26	32.5
Other Government Pension	24	10.3	9	11.2
Earnings	6	2.6	3	3.7
Other	12	5.1	2	2.5

Valid cases: self = 234; spouse = 80.

TABLE 13

NUMBER OF RESPONDENTS FOR ONE AND TWO PERSON HOUSEHOLDS BY INCOME SOURCE

Income Source	Household size			
	One		Two	
	Absolute Frequency	Relative Frequency	Absolute Frequency	Relative Frequency
		(per cent)		(per cent)
GIS	74	57.8	40	44.4
No GIS	54	42.2	50	55.6

Valid Cases: one person = 128, two persons = 90

TABLE 14

INCOME

a) Previous Month's Net Household Income

dollars	Absolute Frequency	Relative Frequency
		(per cent)
under 300	3	1.7
300-600	89	51.5
601-900	46	26.6
901-1,200	18	10.4
1,201-1,500	5	2.9
1,501-1,800	3	1.7
1,801-2,100	5	2.9
over 2,100	4	2.3

Valid Cases = 173 Missing Cases: No Answer = 8;
Refused = 37;
Don't Know = 16.

TABLE 14 cont.

b) Previous Year's Net Annual Household Income

dollars	Absolute Frequency	Relative Frequency
		(per cent)*
under 3,000	5	5.8
3,000-6,000	36	41.9
6,001-9,000	17	19.8
9,001-12,000	14	16.3
12,001-15,000	3	3.5
15,001-18,000	3	3.5
18,001-21,000	2	2.3
over 21,000	6	7.0

Valid Cases = 86 Missing Cases: No answer = 64;
Refused = 36;
Don't Know = 28;
Didn't File = 20.

*doesn't add due to rounding.

TABLE 15

PRINCIPAL STORE AND REASON FOR CHOICE

REASON	STORE						
	Safeways	Woodwards	I.G.A.	Co-op	Super Valu	Other	Total
closest to home	90	20	7	1	1	11	130 (55.6%)
prices	25	4	0	3	0	2	34 (14.5%)
close to other stores and services	2	3	0	0	1	0	6 (2.6%)
variety	8	5	0	0	0	0	13 (5.6%)
quality	3	4	0	2	0	0	9 (3.8%)
goes with someone	5	0	0	0	0	0	5 (12.1%)
services	1	5	0	0	0	2	8 (3.4%)
rebate	0	0	0	5	0	0	5 (2.1%)
bus	1	9	0	0	0	1	11 (4.7%)
other	5	4	2	1	0	1	13 (5.6%)
TOTAL	140 (59.8%)	54 (23.1%)	9 (3.8%)	12 (5.1%)	2 (0.9%)	17 (7.3%)	234

TABLE 16

OTHER SOURCES OF FOOD

a) Other Sources for Buying Groceries

	Absolute Frequency	Relative Frequency
		(per cent)
another supermarket	110	47.0
corner/convenience store	40	17.1
food co-operative	11	4.7
directly from farmer	1	0.4
other	6	2.6
no other sources	66	28.2

Valid Cases = 234

b) Other Sources for Obtaining Food

	Absolute* Frequency	Relative Frequency	Mean**	Standard Deviation
		(per cent)	(meals)	
Meals on Wheels	6	2.6		
Garden	83	35.5		
Senior Citizen's Group	133	56.8	1.8/week	1.5
Friends or Relatives	170	72.6	2.8/month	1.8
Restaurant or Cafeteria	157	67.1	4.4/month	5.7

Valid Cases = 234

*number using the source
**of those using the source

TABLE 17

WHEN FOOD SHOPPING IS DONE

a) Frequency of Major Food Purchase

	Absolute Frequency	Relative Frequency (per cent)
1-3 times/week	150	64.1
4-7 times/week	6	2.6
every two weeks	18	7.7
once a month	23	9.8
don't have a major purchase	37	15.8

Valid cases = 234

b) Frequency of Food Purchase During an Average Week
Mean = 2.3 Standard Deviation = 1.3

TABLE 18

OBTAINING GROCERIES

a) Means of Transportation to Principle Store

	Absolute Frequency	Relative Frequency
		(per cent)
own vehicle	75	32.1
walk	66	28.2
bus	60	25.6
another's vehicle	23	9.8
other	10	4.3

Valid cases = 234

TABLE 18 cont.

b) Distance to Princpal Store

blocks	Absolute Frequency	Relative Frequency
		(per cent)
up to 5	111	47.9
6-10	46	19.8
11-15	30	12.9
16-20	4	1.7
over 20	41	17.7

Valid Cases = 232

Mean = 11.3 blocks
Standard deviation = 14.6
1 mile = 12 blocks

c) Delivery

	Absolute Frequency	Relative Frequency
		(per cent)
yes	14	6.0
no	215	91.9
sometimes	5	2.1

Valid cases = 234

TABLE 19

SHOPPING PERIOD

a) Day of Food Shopping

	Absolute Frequency	Relative Frequency	Absolute Frequency	Relative Frequency
		(per cent)		(per cent)
Monday	16	13.9		
Tuesday	8	7.0		
Wednesday	8	7.0		
Thursday	26	22.6		
Friday	35	30.4		
Saturday	22	19.1		
Sunday	0	0.0		
Total	115	100.0	115	49.4
No particular day			118	50.6

Valid Cases = 233

b) Time of Day

	Absolute Frequency	Relative Frequency	Absolute Frequency	Relative Frequency
		(per cent)		(per cent)
morning	110	60.8		
afternoon	67	37.0		
evening	4	2.2		
total	181	100.0	181	77.7
no particular time			52	22.3

Valid Cases = 233

TABLE 20
SHOPPING HABITS

	Yes	Sometimes	Rarely	No	Total
Do you shop by yourself?	160 (68.4%)	29 (12.4%)	1 (0.4%)	44 (18.8%)	234
Do you make a shopping list before shopping for groceries	145 (62.2%)	20 (8.6%)	4 (1.7%)	64 (27.5%)	233
Do you spread your shopping amongst different stores to buy their "specials"?	51 (22.0%)	27 (11.6%)	19 (8.2%)	135 (58.2%)	232
If another brand is cheaper do you try it instead of your usual brand?	97 (41.6%)	26 (11.2%)	15 (6.4%)	95 (40.8%)	233
Do you use coupons?	81 (34.6%)	32 (13.7%)	33 (14.1%)	88 (37.6%)	234
Do you buy "large" or "family" size packages rather than smaller packages?	87 (37.2%)	23 (9.8%)	18 (7.7%)	106 (45.3%)	234
Do you look at the unit prices of different brands before buying a particular food item?	133 (56.8%)	12 (5.1%)	11 (4.7%)	78 (33.3%)	234
Do you store extra food items at home when you can buy them at lower prices?	143 (61.1%)	35 (15.0%)	6 (2.6%)	50 (21.4%)	234
Do you check the food ads in the newspaper before going food shopping?	113 (48.3%)	27 (11.5%)	12 (5.1%)	82 (35.0%)	234
Do you compare prices on several food products?	128 (54.9%)	25 (10.7%)	12 (5.2%)	68 (29.2%)	233
Do you buy "small" or "single protion" packages?	114 (49.4%)	20 (8.7%)	9 (3.9%)	88 (38.1%)	231
Do you ask grocery store personnel to divide up meat or produce packages into small portions when only large packages are on display?	35 (15.1%)	9 (3.9%)	8 (3.3%)	180 (77.6%)	232

TABLE 21

SOME FOOD BUYING DIFFICULTIES

	YES		
	Absolute Frequency	Relative Frequency	Valid Cases
Do you have any health problems which limit the food you can eat?	76	32.9%	231
Do you have physical problems which cause you difficulty when buying food?	38	16.2%	234
Does the design of your grocery store cause difficulty for you?	10	4.3%	233
Do you have any problem with service in the grocery store?	16	6.8%	234
Do you have any difficulty finding food packaged in sizes to suit your need?	60	25.6%	234
Does the type of packaging used on certain food products concern you?	47	20.1%	233
Do you have any problem with the way foods are priced in stores?	72	30.8%	234
Do you find labelling of food to be any problem when grocery shopping?	47	20.3%	232
Does the quality of the food supply concern you?	85	36.3%	234

TABLE 21. cont.

	NO		
	Absolute Frequency	Relative Frequency	Valid Cases
Do you have adequate storage space in your home for			
canned and packaged goods?	19	8.1%	234
frozen foods?	21	9.0%	234
refrigerated food?	13	5.6%	234

TABLE 22

RANKING OF FOOD BUYING CONCERNS

Rank	Concern
1	Food Prices
2	Food Quality
3	Store Pricing Methods
4	Food Packaging
5	Income
6	Health Problems
7	Food Package Size
8	Food Labelling
9	Physical Problems
10	Other
11	Home Storage
12	Store Design
13	Store Service

TABLE 23

RANKING OF FOOD BUYING CONCERNS BY INCOME GROUP

Rank	Low	High
1	Food Prices	Food Prices
2	Food Quality	Food Quality
3	Store Pricing Methods	Store Pricing Methods
4	Income	Food Package Sizes
5	Food Packaging	Food Packaging
6	Health Problems	Health Problems
7	Food Labelling	Physical Problems
8	Food Package Sizes	Food Labelling
9	Physical Problems	Income
10	Home Storage	Store Service
11	Other	Other
12	Store Design	Store Design
13	Store Service	Home Storage

TABLE 24

PREVIOUS MONTH'S MEDIAN HOUSEHOLD EXPENDITURE

	Amount	Percent of Income
	($)	(%)
shelter	101.50	16.9
food at home	100.43	16.7
food away from home	10.30	1.7
clothing	4.75	0.8
travel and transportation	0.45	0.1
recreation	3.33	0.6
household operation	19.25	3.2
other major expenditure	0.35	0.1
TOTAL	240.36	40.1
MONTHLY INCOME	599.71	

TABLE 25

PREVIOUS MONTH'S MEDIAN HOUSEHOLD EXPENDITURE BY INCOME GROUP

a)Expenditures

	HOUSEHOLD SIZE			
	One Person		Two Person	
	Low	High	Low	High
shelter	$119.67 (27.7%)	$195.50 (28.0%)	$ 1.33 (0.2%)	$ 1.00 (0.1%)
food at home	97.94 (22.7%)	80.17 (11.5%)	150.00 (21.3%)	150.44 (16.7%)
food away from home	9.00 (2.1%)	10.00 (1.4%)	10.50 (1.5%)	20.21 (2.2%)
clothing	5.50 (1.3%)	5.50 (0.8%)	9.75 (1.4%)	1.70 (0.2%)
travel and transportation	0.22 (0.1%)	0.29 (0.1%)	10.00 (1.4%)	36.00 (4.0%)
recreation	0.33 (0.1%)	5.30 (0.8%)	5.25 (0.7%)	6.50 (0.7%)
household operation	7.69 (1.8%)	14.50 (2.1%)	50.00 (7.1%)	59.90 (6.6%)
other major expense	0.22 (0.1%)	0.36 (0.1%)	5.00 (0.7%)	1.00 (0.1%)
TOTAL*	240.57 (55.7%)	311.62 (45.2%)	241.83 (34.3%)	276.75 (30.7%)
MONTHLY INCOME	432.00	698.29	703.00	901.50

* percentages may not add due to rounding

TABLE 25 cont.
b)Mann-Whitney U Test Results (Z Value) for Previous Month's Median Household Expenditure by Income Group

	HOUSEHOLD SIZE	
	One Person	Two Person
	Low vs. High	Low vs. High
shelter	0.0474	0.2704
food at home	0.2664	0.4806
food away from home	0.1034	0.0903
clothing	0.9156	0.6979
travel and transportation	0.4493	0.1308
recreation	0.0069	0.7280
household operation	0.0123	0.1113
other major expenses	0.0820	0.4498
MONTHLY INCOME	0.0000	0.0104

TABLE 26

FINANCIAL SITUATION

a) Description of Current Financial Situation

	Absolute Frequency	Relative Frequency
		(per cent)
I do not have enough money to buy the things I need.	11	4.7
I have enough money to buy the things I need.	57	24.6
I have enough money to buy the things I need as well as some of the thing I like to have.	76	32.8
I have enough money to buy the things I need as well as most of the things I like to have.	88	37.8

Valid Cases = 232

TABLE 26 cont.

b) Anticipated Result of a $50/Month Increase*

	Absolute Frequency	Relative Frequency (per cent)
bank, save, bonds	77	33.8
travel, holiday	26	11.4
clothes	23	10.1
spend, vague	20	8.8
groceries	17	7.5
give to relatives	15	6.6
no difference	10	4.4
entertainment	9	3.9
household repairs, purchases	9	3.9
donation to church, charity	8	3.5
other	14	6.1

Valid cases = 228
*based on first response

TABLE 26 cont.

c) Anticipated Result of a $50/Month Decrease*

	Absolute Frequency	Relative Frequency (per cent)**
no difference	78	33.9
budget, general	29	12.6
restrictive, vague	26	11.3
enough to manage	18	7.8
budget, groceries	14	6.1
take from savings	12	5.2
emotional response	9	3.9
budget, transportation/travel	7	3.0
apply for more money	6	2.6
budget clothes	5	2.2
other	26	11.3

Valid cases = 230

*based on first response
**may not add due to rounding

TABLE 26 cont.

d) Noticeable Change in Standard of Living Since Turning 65.

	Absolute Frequency	Relative Frequency
yes	97	41.6
no	136	58.4

Valid cases = 233

e) Description of Change in Standard of Living

	Absolute Frequency	Relative Frequency
prices, cost of living increased	16	16.5
life is better	14	14.4
no longer working	7	7.2
have lost spouse	5	5.2
food prices increased	7	7.2
lower income	8	8.2
more leisure time	6	6.2
health is not as good	5	5.2
more money now	6	6.2
buy less, have to budget	5	5.2
lonelier	3	3.1
easier	4	4.1
other	11	11.3

Valid cases = 97

TABLE 27

a)Description of Current Financial Situation by Income Group

	INCOME GROUP			
	LOW		HIGH	
	Absolute Frequency	Relative Frequency	Absolute Frequency	Relative Frequency
		(per cent)*		(per cent)*
I do not have enough money to buy the things I need	7	5.6	4	3.7
I have enough money to buy the things I need	40	32.0	17	15.9
I have enough money to buy the things I need as well as some of the things I like to have	43	34.4	33	30.8
I have enough money to buy the things I need as well as most of the things I like to have	35	28.0	53	49.5

Valid Cases: Low = 125; High = 107
* may not add due to rounding

Chi square = 13.78291 with 3 degrees of freedom.
Significance = 0.0032 Cramers' V = 0.24374

TABLE 27 cont.

b)Anticipated Result of a $50/Month Increase, by Income Group

	INCOME GROUP			
	LOW		HIGH	
	Absolute Frequency	Relative Frequency	Absolute Frequency	Relative Frequency
		(per cent)		(per cent)*
bank, save, bonds	43	34.4	34	33.0
travel, holiday	15	12.0	11	10.7
clothes	15	12.0	8	7.8
spend, vague	8	6.4	12	11.6
groceries	12	9.6	5	4.9
give to relatives	10	8.0	5	4.9
no difference	2	1.6	8	7.8
entertainment	5	4.0	4	3.9
household repairs, purchases	5	4.0	4	3.9
donation to church, charity	2	1.6	6	5.8
other	8	6.4	6	5.8

Valid Cases: Low = 125; High = 103

*may not add due to rounding

TABLE 27 cont.
c)Anticipated Result of a $50/Month Decrease by Income Group

	INCOME GROUP			
	LOW		HIGH	
	Absolute Frequency	Relative Frequency	Absolute Frequency	Relative Frequency
		(per cent)		(per cent)*
no difference	33	26.4	45	42.9
budget, general	20	16.0	9	8.6
restrictive, vague	18	14.4	8	7.6
enough to manage	9	7.2	9	8.6
budget, groceries	11	8.8	3	2.9
take from savings	6	4.8	6	5.7
emotional response	4	3.2	5	4.8
budget, transportation,travel	2	1.6	5	4.8
apply for more money	3	2.4	3	2.9
budget clothes	3	2.4	2	1.9
other	16	12.8	10	9.5

Valid Cases: Low = 125; High = 105
*may not add due to rounding

TABLE 27 cont.
d)Noticeable Change in Standard of Living Since Turning 65, by Income Group

	INCOME GROUP			
	LOW		HIGH	
	Absolute Frequency	Relative Frequency	Absolute Frequency	Relative Frequency
		(per cent)		(per cent)
yes	65	51.6	32	29.9
no	61	48.4	75	70.1

Valid Cases: Low = 126; High = 107

Corrected Chi square = 10.31859 with 1 degree of freedom.
Significance = 0.0013
Phi = 0.21918

TABLE 27 cont.
e)Description of Change in Standard of Living, by Income Group

	INCOME GROUP			
	LOW		HIGH	
	Absolute Frequency	Relative Frequency	Absolute Frequency	Relative Frequency
		(per cent)*		(per cent)*
prices, cost of living increased	12	18.5	4	12.5
life is better	8	12.3	6	18.8
no longer working	6	9.2	1	3.1
have lost spouse	5	7.7	0	0.0
food prices increased	5	7.7	2	6.3
lower income	5	7.7	3	9.4
more leisure time	4	6.2	2	6.3
health is not as good	3	4.6	2	6.3
more money now	3	4.6	3	9.4
buyless, have to budget	2	3.1	3	9.4
lonier	2	3.1	1	3.1
easier	2	3.1	2	6.3
other	8	12.3	3	9.4

Valid Cases: Low = 65; High = 32
* may not add due to rounding

TABLE 28

FOOD PRICES

a) Noticed Food Price Changes in the Last Year

	Absolute Frequency	Relative Frequency
		(per cent)
yes	228	97.4
no	6	2.6

Valid cases = 234

TABLE 28. cont.

b) Items Price Changes Noticed*

	Absolute Frequency	Relative Frequency (per cent)**
everything	22	2.5
dairy product	170	19.7
meat	175	20.3
beef	3	0.3
pork	4	0.5
poultry	46	5.3
fish	5	0.6
vegetables	69	8.0
fruit	70	8.1
beverages	51	5.9
bakery and cereal products	134	15.5
sugar and sweets	58	6.7
fats and oils	10	1.2
miscellaneous groceries	37	4.3
nonfood	9	1.0

Valid cases = 863
*based on multiple response
**may not add due to rounding

TABLE 28. cont.

c) Concerned About Price Changes

	Absolute Frequency	Relative Frequency (per cent)
yes	153	66.2
no	78	33.8

Valid cases = 237

TABLE 28 cont.

d) Reason for Concern or No Concern About Price Changes

	CONCERN		NO CONCERN		TOTAL	
	AF	RF	AF	RF	AF	RF
		(%)		(%)		(%)*
still buy what I want	7	4.5	23	29.5	30	13.0
have enough money	0	0.0	13	16.7	13	5.6
nothing I can do	6	3.9	5	6.4	11	4.8
concern for others	21	13.7	4	5.1	25	10.8
everytime, something's gone up	6	3.9	0	0.0	6	2.6
have to budget	7	4.6	1	1.3	8	3.5
when will it stop?	30	19.6	1	1.3	31	13.4
costs too much	5	3.3	0	0.0	5	2.2
rise in food prices	3	2.0	0	0.0	3	1.3
can't afford it	9	5.9	0	0.0	9	3.9
less money for other things	2	1.3	0	0.0	2	0.9
no need for some of it	2	1.3	0	0.0	2	0.9
govt should keep closer watch	2	1.3	0	0.0	2	0.9
have to pay more	7	4.6	0	0.0	7	3.0
too high	2	1.3	0	0.0	2	0.9
difficult to live on a budget	7	4.6	0	0.0	7	3.0
I manage	1	0.7	5	6.4	6	2.6
change food shopping habits	11	7.2	0	0.0	11	4.8
other	6	3.9	1	1.3	7	3.0
no answer	19	12.4	25	32.0	44	19.0

Valid Cases: Concern = 153; No Concern = 78; Total = 231
* doesn't add due to rounding

AF = Absolute Frequency RF = Relative Frequency

TABLE 28. cont.

e) Eliminated or Cut Down on Foods Due to Price Increases

	Absolute Frequency	Relative Frequency
yes	69	29.6
no	164	70.4

Valid cases = 233

f) Increased Consumption Due to Eliminating or Cutting Back

	Absolute Frequency	Relative Frequency
yes	38	55.1
no	28	40.6
no answer	3	4.3

Valid cases = 69

TABLE 28. cont.

g) Food Consumption Changed

	Eliminated		Cut-Down		Increased	
	AF*	RF	AF*	RF	AF*	RF
		(%)**		(%)**		(%)**
dairy products	12	30.0	7	8.8	4	6.5
meat	11	27.5	37	46.3	5	8.1
beef	1	2.5	3	3.8	2	3.2
pork	3	7.5	1	1.3	2	3.2
poultry	0	0.0	2	2.5	10	16.1
fish	0	0.0	0	0.0	2	3.2
vegetables	5	12.5	8	10.0	15	24.2
fruit	6	15.0	11	13.8	6	9.7
beverages	1	2.5	2	2.5	0	0.0
bakery and cereal products	0	0.0	3	3.8	11	17.7
sugar and sweets	1	2.5	6	7.5	0	0.0
fats and oils	0	0.0	0	0.0	2	3.2
miscellaneous groc	0	0.0	0	0.0	1	1.6
water	0	0.0	0	0.0	2	3.2

Valid Cases: Eliminated = 40;
Cut Down = 80;
Increased = 62.

AF - Absolute Frequency
RF - Relative Frequency

*based on multiple response,
eg. Of the foods eliminated, 30.0% of the foods mentioned (considering multiple response) were from the dairy product group

**may not add due to rounding

TABLE 29
FOOD PRICES BY INCOME GROUP
a)Concerned About Food Price Changes, by Income Group

	INCOME GROUP			
	LOW		HIGH	
	Absolute Frequency	Relative Frequency	Absolute Frequency	Relative Frequency
		(per cent)		(per cent)
yes	78	62.4	75	70.8
no	47	37.6	31	29.2

Valid Cases: Low = 125; High = 106

Corrected Chi square = 1.43614 with 1 degree of freedom.
Significance = 0.2308
Phi = 0.08803

TABLE 29 cont.
b)Reason for Concern (Or No Concern) About Price Changes by Income Group

	CONCERN				NO CONCERN			
	LOW		HIGH		LOW		HIGH	
	AF	RF	AF	RF	AF	RF	AF	RF
		(%)*		(%)*		(%)*		(%)*
still buy what I want/need	2	2.6	5	6.7	16	34.0	7	22.6
have enough money	0	0.0	0	0.0	6	12.8	7	22.6
nothing I can do	4	5.1	2	2.7	4	8.5	1	3.2
concern for others	7	9.0	14	18.7	0	0.0	4	12.9
everytime something's gone up	3	3.8	3	4.0	0	0.0	0	0.0
have to budget	5	6.4	2	2.7	0	0.0	1	3.2
when will it stop?	14	17.9	16	21.3	1	2.1	0	0.0
costs too much	4	5.1	2	2.7	0	0.0	0	0.0
rise in food prices	1	1.3	2	2.7	0	0.0	0	0.0
can't afford it	5	6.4	4	5.3	0	0.0	0	0.0
less money for other things	3	3.8	1	1.3	0	0.0	0	0.0
no need for some of it	1	1.3	1	1.3	0	0.0	0	0.0
gov't should keep closer watch	1	1.3	1	1.3	0	0.0	0	0.0
have to pay more	5	6.4	2	2.7	0	0.0	0	0.0
too high	1	1.3	1	1.3	0	0.0	0	0.0
difficult to live on a budget	6	7.7	1	1.3	0	0.0	0	0.0
I manage	0	0.0	1	1.3	3	6.4	2	6.5
change food shopping habits	6	7.7	5	6.7	0	0.0	0	0.0
other	1	1.3	2	2.7	0	0.0	1	3.2
no answer	9	11.5	10	13.3	17	36.2	8	25.8

Valid Cases: Concern Low = 78; No Concern Low = 47;
Concern High = 75; No Concern High = 31

*doesn't add due to rounding
AF = Absolute Frequency RF = Relative Frequency

TABLE 29 cont.

c)Eliminated or Cut Down Consumption of Specific Foods Due to Price Changes, by Income Group

	INCOME GROUP			
	LOW		HIGH	
	Absolute Frequency	Relative Frequency	Absolute Frequency	Relative Frequency
		(per cent)		(per cent)
yes	40	31.7	29	27.1
no	86	68.3	78	72.9

Valid Cases: Low = 126; High = 107
Corrected Chi Square = 0.39646 with 1 degree of freedom.
Significance = 0.5289
Phi = 0.05068

d)Increased Consumption of Specific Foods Due to Above, by Income Group

	INCOME GROUP			
	LOW		HIGH	
	Absolute Frequency	Relative Frequency	Absolute Frequency	Relative Frequency
		(per cent)		(per cent)
yes	21	52.5	17	58.6
no	18	45.0	10	34.5
no answer	1	2.5	2	6.9

Valid Cases: Low = 40; High = 29

APPENDIX 2 - QUESTIONAIRE

FOOD BUYING PRACTICES OF SENIOR CITIZENS

Hello, my name is ____________________

I'm doing a survey for the University of Alberta. I'm interested in talking to senior citizens about the way they shop for food and any difficulties with grocery shopping they might have. I would like to talk to you. Would you be willing to sit down with me to talk about your grocery shopping?

Before we begin I have a couple of questions to ask, to see if you qualify:

Are you 65 years of age or older?

Do you do your own grocery shopping?

- -

Interviewer ____________________

Date ____________________

Time ____________________

Place ____________________

Respondent Information:

Name ____________________

Phone ____________________

To begin with, I would like to ask you some questions about where you do your grocery shopping.

1. At which store do you spend most (the largest portion) of your grocery money?
Safeway..................................1
Woodwards................................2
I.G.A....................................3
Co-op....................................4
Super Valu...............................5
other (specify) ______________________________...6
no answer, don't know....................9 __________

2. What is *the* most important reason for shopping at this particular store?
closest to home..........................1
shopping hours...........................2
parking..................................3
prices...................................4
close to other stores or services..............5
variety..................................6
quality..................................7
other (specify) ______________________________...8
no answer, don't know....................9 __________

3. About how far is it from your home to this store?

a. blocks (put 0 if reported in miles, blank if don't know)............................ __________

b. miles (put 0 if reported in blocks, blank if don't know)............................ __________

4. What transportation is usually used to get to this store?
own car/truck............................1
walk.....................................2
bus......................................3
taxi.....................................4
car/truck of friend/relative.............5
other (specify) ______________________________...8
no answer, don't know....................9 __________

5. In addition to where most of the grocery money is spent, is there anywhere else you buy groceries?
yes (specify) corner/convenience store.........1
specialty store (bakery, etc)....2
directly from farmer, etc........3
food co-operative................4
supermarket......................5
door delivery....................6
other ____________________________7
no.......................................8 __________

What items have you noticed price changes on?
Increased

Decreased

Do these price changes concern you?
yes..1
no...2
why (or why not)?

17. Because of the increased food prices, have you eliminated or cut down on any foods in your diet during the last six months?
no (go to 18)..............................1
yes..2
What foods have you eliminated because of price increases?

What foods have you cut down on because of price increases?

Have you increased your consumption of any foods because of eliminating or cutting back on the ones just mentioned?
no (go to 18)..............................1
yes..2
What foods did you increase consumption of?

18. Do you have any health problems which limit the foods you can eat?
no (go to 19)..............................1
yes..2
What foods do you have to limit?

Does this cause any problem when buying and selecting foods?
no (go to 19)..............................1
yes..2
In what way?

19. Do you have any physical problems which cause you difficulty when buying food?
no (go to 20)..............................1
yes..2

In what way?____________________________________

____

____ __________

20. Does the design of your grocery store cause
any problems for you?
no (go to 21).................................1
yes...2 __________
In what way?____________________________________

____

____ __________

21. Do you have any problem with service in
the grocery store?
no (go to 22).................................1
yes...2 __________
In what way?____________________________________

____

____ __________

22. Do you have any difficulty finding food packaged
in sizes to suit your needs?
no (go to 23).................................1
yes...2 __________
Can you give me any examples?

____ __________

____ __________

____ __________

Do you still buy the food even if the package size is
inconvenient?
yes...1
no..2 __________

Would you be willing to spend a few cents more for more
suitable package sizes?
yes...1
no..2 __________

23. Does the type of packaging used on certain food
products concern you?
no (go to 24).................................1
yes...2 __________
In what way?____________________________________

____

____ __________

24. Do you have any problem with the way foods are
priced in stores?
no (go to 25).................................1
yes...2 __________
In what way?____________________________________

____

____ __________

25. Have you heard of the new optical scanners being put into some supermarkets?
no (go to 26)....................................1
yes..2 __________
How do you feel about them? ____________________
____
____ __________

26. Do you find labelling of food to be any problem when grocery shopping?
no (go to 27)....................................1
yes..2 __________
In what way? ____________________
____
____ __________

27. Does the quality of the food supply concern you?
no (go to 28)....................................1
yes..2 __________
Can you give me some examples? ____________________
____
____ __________

28. Do you feel you have adequate storage space, in your home for:
canned and packaged goods;
yes..1
no...2 __________
frozen foods;
yes..1
no...2 __________
refrigerated foods;
yes..1
no...2 __________
(If answer "no" to any of the above)
Are there particular foods you are unable to buy because of restricted storage space?
yes..1
no...2 __________
What foods? ____________________
____ __________

29. We have discussed several areas of possible food buying concerns.
Is there any aspect of food buying or food selection that we haven't mentioned, which causes you concern or difficulty when buying food or which you would like to comment on?
no (go to 30)....................................1
yes..2 __________
Please describe ____________________
____
____ __________

30. These are the areas we have covered: (Hand Card B)
1. income
2. food prices ______
3. health problems ______
4. physical problems ______
5. store design ______
6. store service ______
7. food package sizes ______
8. food packaging ______
9. store pricing methods ______
10. food labelling ______
11. food quality ______
12. home storage ______
13. other______________________ ______

Please rank these based on your concern. Which would you say is your greatest problem when buying food? second, third, etc.

Do any of these areas prevent you from buying the food you need?
no 1
yes..2 ______
(If yes) which one(s)?........................ ______
______

Why? (or why not?)______________________
____
______________________ ______

31. These questions are general ones which will enable me to include your views with those of other people with whom you have certain characteristics in common. Please remember all individual answers will remain confidential.

Sex
male..1
female......................................2 ______

What is your date of birth?
day.. ______
month...................................... ______
year....................................... ______

What is the highest level of schooling you obtained?
less than grade 5..................................1
grade 5 to grade 8.................................2
grade 9 to 10......................................3
grade 11 to 13.....................................4
some post-secondary, no university.............5
completed post-secondary, non university.......6
some university....................................7
completed university...............................8
no answer, don't know..............................9 __________

How many people are there in your household,
counting yourself?............................ __________

What is your current living arrangement?
live entirely on own...............................1
share living quarters with: (omit next question)
  spouse...2
  child(ren).......................................3
  relative...4
  friend...5
  other(specify)____________________________...8
  no answer, don't know............................9 __________
How long have you lived entirely on your own? __________

Do you own or rent your current place of residence?
own (go to 32).....................................1
rent...2
other__________________________..................8 __________
Is your rent subsidized?
yes..1
no...2
don't know...8
no answer..9 __________

32. Please tell me if you receive any of the following:
(yes = 1, no = 0, no answer = 8, don't know = 9)

	Self	Spouse
Canada Pension Plan	__________	__________
Old Age Security Plan	__________	__________
Guaranteed Income Supplement	__________	__________
Alberta Assured Income Plan	__________	__________
Spouse's Allowance	__________	__________
Investment Income	__________	__________
Retirement Pensions (employer sponsored, superannuation, income from other annuities, miscellaneous)	__________	__________
Other Government Pension	__________	__________
Earnings	__________	__________
Other (specify)__________________	__________	__________

(If Applicable) Does your spouse?

What was your (and your spouses) income last month after taxes and deductions? ____________

What was your (and your spouses) net annual income for 1979, as reported on your tax return? ____________

33. What street and avenue do you live closest to (ie. what is the address of your nearest corner)?

Street ______________________

Avenue ______________________ ____________

THANK YOU

Interviewer Comments:

APPENDIX 3 - INTERVIEWER'S MANUAL

FOOD BUYING PRACTICES OF SENIOR CITIZENS

INTERVIEWER'S MANUAL[1]

Department of Rural Economy,

University of Alberta

I. INTRODUCTION

"Food Buying Practices of Senior Citizens" is a study designed to determine food buying concerns of older persons. The study is being supervised by the Department of Rural Economy at the University of Alberta.

The information in the study will be used to determine if there is a need for government policy to aid senior citizen food buyers and to see if there are ways food retailers could improve their services to elderly food buyers.

As an interviewer for this study you form the vital link in the study process. The usefulness of the information gathered depends on your interviewing skills and objectivity in selecting respondents.

This manual is designed to aid you in conducting the interviews. The manual outlines: sampling; initial procedures; the interview; the questionnaire; and administration.

II. SAMPLING

It is not possible to interview everyone over 65 years of age who lives in Edmonton. Nor is it possible to obtain a list of Edmontonian seniors from which to draw a representative sample. Therefore we will be selecting the respondents from older persons who attend the major senior centers in Edmonton.

You will be assigned (a) center(s), and a given number of interviews to complete. In Appendix C you will find the name(s) of your assigned center(s), the addresses, the hours of operation, the name and phone number of a contact person at each center, and information on the center's peak hours.

You are responsible for the selection of the respondents. For the data to be of the greatest value, it is important that you select your respondents at random. Try to AVOID only selecting respondents who appear friendly or interested. Attempt to set up a system for randomizing by (e.g.) selecting the nth person starting from a particular corner. Try to select the respondents in such a way that at a particular time, every older person at the center has an equal chance of being selected.

III. INITIAL PROCEDURES

1. Dress neatly and conservatively. Remember that people who do not know you are greatly affected by first impressions. Respondents usually react more to the interviewer than the questions asked.

2. Briefly introduce yourself using your name to personalize your contact at the outset – long complex introductions are rarely needed. Convey a positive, confident attitude to the respondent. You should expect that the individual will cooperate. After requesting

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[1] This manual includes sections of "The University of Alberta, Edmonton Area Study, Interviewer's Handbook 1980. Study Director, N.C. Northcott Ph.D.

permission to interview, wait and respond appropriately. That is, size up the situation quickly using your intuitive feelings as a guide about what approach to use. Some people will grant an interview with brief information; others may require more. It is common for people to react to strangers with distrust and suspicion at first. To overcome these feelings you should emphasize purpose, anonymity, confidentiality, benefits and impersonal use of the study. In the case of seniors, they are often concerned about the need to fill forms in – assure them that you will do all the writing. If there is some question about confidentiality it is sometimes helpful to tell the respondent that you have signed a pledge of confidentiality with the University of Alberta. Be brief.

3. Be prepared to show your I.D. letter.

4. Do not be too specific as you may bias the interview.
   WE ARE INTERESTED IN THE WAY SENIOR CITIZENS SHOP FOR FOOD AND ANY DIFFICULTIES THEY MAY HAVE WITH GROCERY SHOPPING.

5. A person is eligible to be the respondent if:
   a. the person is 65 years of age or older.
   b. the person is the grocery shopper for their household.

6. Since suspicion and distrust are failry common where people meet strangers, don't give up too easily.
   a. when refused, make sure it is not your fault.
   b. if you do all you an to convince the respondent to participate and are still refused, it is usually the result of some personality trait of the respondent beyond your control.
   c. some refusals are unavoidable, but your goal should be to encourage the highest level of cooperation.
   d. record refusals on your tally sheet and whenever possible state a reason for the refusal.

IV. THE INTERVIEW

A. The Characteristics of a Good Interviewer

1. *Neutrality* – The interviewer must *not* express his or her own attitudes or knowledge, criticism, shock, surprise, approval or disapproval. Although the interviewer must avoid biasing the respondent, he or she should not be so unexpressive that *rapport* suffers. Acknowledge the respondents' statements in some neutral but attentive manner (for example: a nod of the head accompanied by "I see.")

2. *Be warn and responsive* – Respondents must feel that the interviewer has a genuine interest in them as people. Be attentive and interested to what the respondent says. By being courteous, friendly and conversational the interviewer can *put the respondent at ease*. It is also important that the interviewer be so familiar with the survey questions that he or she can ask them *conversationally*. If the questions are read mechanically the respondent will often become bored and give mechanical answers in return. Try to be as informal as possible.

3. *Be accurate* – The interviewer must remember that he or she is a *technician* as well. The interviewer must ask questions according to the format given, record the answers VERBATIM and follow all instructions precisely. The interviewer should not skip questions, record answers incorrectly or allow the respondent to digress unnecessarily.

B. Procedures During the Interview

Some respondents may want to see the questionnaire before you start asking questions, or may want to fill out the questionnaire themselves, or may ask that you leave the questionnaire with them to fill out. Under no circumstances should you allow this. If the respondent either sees the questions ahead of time or fills it out himself, there is a danger of getting biased answers. Some questions or group of questions are in a particular sequence that must be answered without the foreknowledge of the questions to come.

In any survey it is best if you can interview the respondent in the privacy of a separate room. The interview will proceed much more smoothly. Check with your contact person upon arriving at the center, to see if there is a private area where the interview can be done.

1. Some tips on handling respondent digressions:
   a. Do not cut off digressions too eagerly. A brief discussion initiated by the respondent can be relaxing for both of you.
   b. Long or frequent digressions should be discouraged with *tact*: Here are several suggestions:
      1) "gentle information – Putting down your pencil, looking away for a moment, or leafing through your notebook sometimes draws the respondent back.
      2) Bring the respondent back by relating what she or he has been saying to the next question or topic on the questionnaire.
      3) Long personal anecdotes may be shortened by discerning the ending and thus eliminating some of the details. If nothing else works, use direct interruption. Tell the respondent that you would be glad to talk *after* completion of the interview.

2. Probes – These are questions or phrases used by the interviewer to stimulate discussion and obtain specific and complete responses which satisfy the question objectives. *Only by knowing the question objectives can you recognize an inadequate response.*
   a. Types of probing:
      1) *A brief assertation* of understanding and interest: this should communicate the idea that the interviewer expects more information.
      2) *An expectant pause* along with an expectant look allows the respondent time to gather his or her thoughts.
      3) *Repeating the question* may allow the respondent to discern the type of answer required for the question.
      4) *Repeating the respondent's reply* often stimulates further thought on the topic by the respondent.
      5) *A neutral question or comment* requires the interviewer to recognize just how the respondent's answer has failed to meet the objective of the question. The interviewer must then formulate a neutral type of question to elicit the needed information.
      6) *Asking for further clarification* – appear bewildered by the respondent's answer: be sure to intimate that it is *you* who has failed to understand. (for example – "I'm not quite sure / know what you mean by that – could you tell me a little more.")

3. Interpreting the "I don't know" response:
   a. The interviewer must use gentle probing to discover the *true meaning* of this response.
   b. "I don't know" response has several possible meanings:
      1) The respondent does not understand the question but does not want to admit this.
      2) The response is given as a stop-gap measure while the respondent thinks about the question.
      3) The response may be the respondent's way of evading a question because he feels uninformed or that he may give a "wrong answer".
      4) The respondent may actually not know, or really have no opinion on the subject. This in itself is significant to the survey results but the interviewer must make sure that this is the case.

4. Possible answers to possible questions during the interview:
    a. *Q.* "How do you think I should answer this question?"
    A. "My opinion is not important. It's *your* opinion that we are interested in. My job is to *get* opinions not to *have* them."
    b. *Q.* "That's ridiculous. What kind of question is that?"
    A. "I know some of these questions are really frustrating. The people in my office must have had some reason for putting that in. We have to read it just as it is written."
    c. *Q.* "Do I have to answer that stupid question?"
    A. "You don't have to answer any question if you'd prefer not to. I'm only trying to get your opinion because our study is more accurate that way."

5. Recording responses – there are a number of general rules to keep in mind when recording the responses on the survey questionnaire:
    a. Record the responses *during* the interview – begin recording as soon as the respondent starts talking. Relevant information may be lost or distorted if the interviewer tries to remember what is said and write it down later. Jot down the key words and phrases *as the respondent is talking*.
    b. Use the respondent's words – record his or her replies *verbatim*.
    c. Do *not* summarize or paraphrase the respondent's answers. This often causes a distortion of data.
    d. Include all information which pertains to the question objectives.
    e. Include all your probes – this allows coders and analysts to determine what influenced the respondent to reply as he did.
    f. Hold the respondent's interest by repeating the respondent's reply *as you are writing it down*.

C. Mechanics of Recording and Editing an Interview

1. Write legibly.

2. Use pencil to record – Small words may be left out during the interview but must be filled in after the interview.

3. Use parentheses to indicate interviewer's words, observations or probes.

4. If the respondent gives some sort of statement along with his answer, record this clarification.

5. Cross reference all relevant material in the interview.

6. Account for each question – If there is no answer explain why – for example, inappropriate, omitted or skipped.

7. Be sure to identify each interview with your name and the date.

V. THE QUESTIONNAIRE

A. General Information

The questionnaire has been designed to allow the respondent freedom of response while maintaining a structure to the interview.

The questionnaire is composed of five parts:

1. Where they do their grocery shopping
2. The way they purchase food
3. Other sources of food
4. Consumer concerns and difficulties

5. Socio-economic information

Questions are to be read in such a way that respondents determine their own response. Write the number corresponding to the response in the blank in the right margin. If the response doesn't match one of those given, write in the respondent's response under the question and it will be coded later. Additional comments of interviewer or respondent may be noted in the left margin.

If there is no answer, or if they don't know, then code as "9" (unless otherwise indicated).

Watch for questions involving "GO TO"'s. To assist you, the questionnaire in Appendix A has arrows to indicate the order of the questions. The actual questionnaires have verbal instructions only.

Questions 12 and 30 require you to give the respondent an index card with a list of possible responses. This will allow the respondent to think about their responses.

B. Notes on Specific Questions

*If unsure of what to code, write down the response vertabim.
*Unless otherwise noted, there is no need to read responses.

1. Where they do their grocery shopping
-if the split their food bill between two stores (ie. 50-50) indicate "other" and specify.

2. -by getting the respondent to elaborate you may be able to match to a coded response.
eg. If they say "it's convenient", ask "What do you mean by convenient". BUT don't pigeon hole responses. If different answers are give, record them as "other".

3. -

4. -

5. -examples of coding:
Tomboy - supermarket
Red Rooster - convenience store
Health food store - other
Butcher - specialty store

6. -

7. -ie. how often do you go to a food store and make a purchase in an average week?

8. -once a week code "1"
-three times a week code "3"
-eg. if they walk to a store, the may go three times a week, and all purchases might be of equal size. In this case the code would be "3".

9. -if they respond "yes" request the particular day and use the code given in question "10".

10. -if they respond "yes" to question 9, question 10 would refer to "what other days...".
-if they responded "no" to question 9, question 10 would refer to "what days do..."
-if there are more than three days, or if it varies, code "9" for NA.

11. -

12. The way they purchase food
-hand the respondent Card A and read the responses aloud.

13. Other sources of food
-for this section indicate the number of times in the blank (except for the question on a garden).
-if less than one (on the average) write "0".
-note: some questons are for an average month and some are for an average week.

14. Consumer concerns and difficulties
In this section please pay particular attention to the recording of respondents comments.
-shelter = rent, mortgage
-food at home = grocery bill
-food away from home = food spent on sources mentioned in the previous section
-clothing = includes shoes
-travel and transportation = refers to trips and transportation in the city (car, bus, taxi)
-recreation =, reading, bingo, etc.
-household operation = utilities, furnishings, equipment, up-keep and repairs
-emphasize that the figures are approximate and that it refers to last month (ie. October, 1980)
-note: if the respondent finds this question too difficult don't dwell on it.
-if they identify another major expense in their budget ask them to estimate that as well for last month.

15. -when reading the question emphasize: do/do not and need/like - so as to be sure the respondent understands differences between the statements.

16. -

17. -

18. -

19. -

20. -design of the grocery store is the layout of the store, or the way it is organized

21. -service is the staff or the services the store offers.

22. -ie. how do you feel about the size of packages

23. -type of packaging is the material used (glass, plastic, etc.) ease of opening, closing, storing, etc.

24. -way foods are priced refers to the stickers on the food and on the shelves

25. -optical scanners = computer pricing

26. -labelling is the way foods are identified and marked

27.

28.

29.

30. -if they give a response to question 29, print that clearly on the bottom of the list on Card B and hand to respondent
-read the list aloud
-rank by first concern (1), second (2), etc., in the right column until respondent has difficulty replying

31. Socio-economic information
-don't ask sex!
-record month by number (eg. April - 4)
-note that it is day then month
-if they were educated in another country convert to number of years of schooling
-current living arrangement - do you live entirely on your own, or do you share your living quarters?
-if rent is 25% of their income then it is subsidized

32. -Canada Pension Plan is the federal pension plan paid into while employed
-Old Age Security (O.A.S.) is the pension almost all senior citizens receive
-Guaranteed Income Supplement (G.I.S.) is added on to the O.A.S. if they qualify for the supplement, so they may be unaware of receiving it
-A.A.I.P. is the provincial government supplement, which is paid to all senior citizens receiving G.I.S. Therefore, if they receive a cheque and a supplement (ie. two "pension cheques") they are receiving O.A.S., G.I.S. and A.A.I.P.
-Spouse's Allowance is paid to the spouse of the pensioner if they are 60-65. Therefore, no respondents should be receiving this, but spouse's might
-investment income includes rent received from a house they own
-estimate income for last month (ie. October, 1980)
-if they ask why it is necessary for us to know their income stress confidentiality and indicate that we are interested in relating food expenditures to income.

33. -do not code this question.

Interviewer comments may be added to the bottom of the last page. This may include comments such as how attentive, or cooperative the respondent was or any other comments on the overall interview.

Fill in information about the respondent, after completion of the entire interview, on the front page. Name and phone number are required for possible clarification. Assure complete confidentiality as the front page will later be separated from the remainder of the questionnaire.

VI. ADMINISTRATION

VII. APPENDICES

CARD A

yes

some of the time

rarely

no

CARD B

- income
- food prices
- health problems
- physical problems
- store design
- store service
- food package size
- food packaging
- store pricing methods
- food labelling
- food quality
- home storage

Appendix B

PEOPLE AND PLACES

Brenda Brindle
Room 525 General Services Building
University of Alberta
Phone: 432-5441 or 439-7769 (home)

Dr. Murray Hawkins
Phone: 432-4562

Senior Centers

Society for the Retired and Semi-Retired
Strathcona Place
Central Lions Senior Citizens Recreation Center
Jewish Senior Citizens Center
Operation Friendship - Bissell Center
Alex Taylor Drop-in Center
West Edmonton Seniors
S.C.O.N.A.
Edmonton Northgate Lions Senior Citizens Recreation Center
Brighton Seniors

Senior Citizens Bureau
Alberta Social Services and Community Health
Seventh Street Plaza
10030 - 107 Street
Edmonton, Alberta T5J 3E4
Phone: 427-7876

RECORD OF INTERVIEWS

Interviewer ______________________ Location ______________________

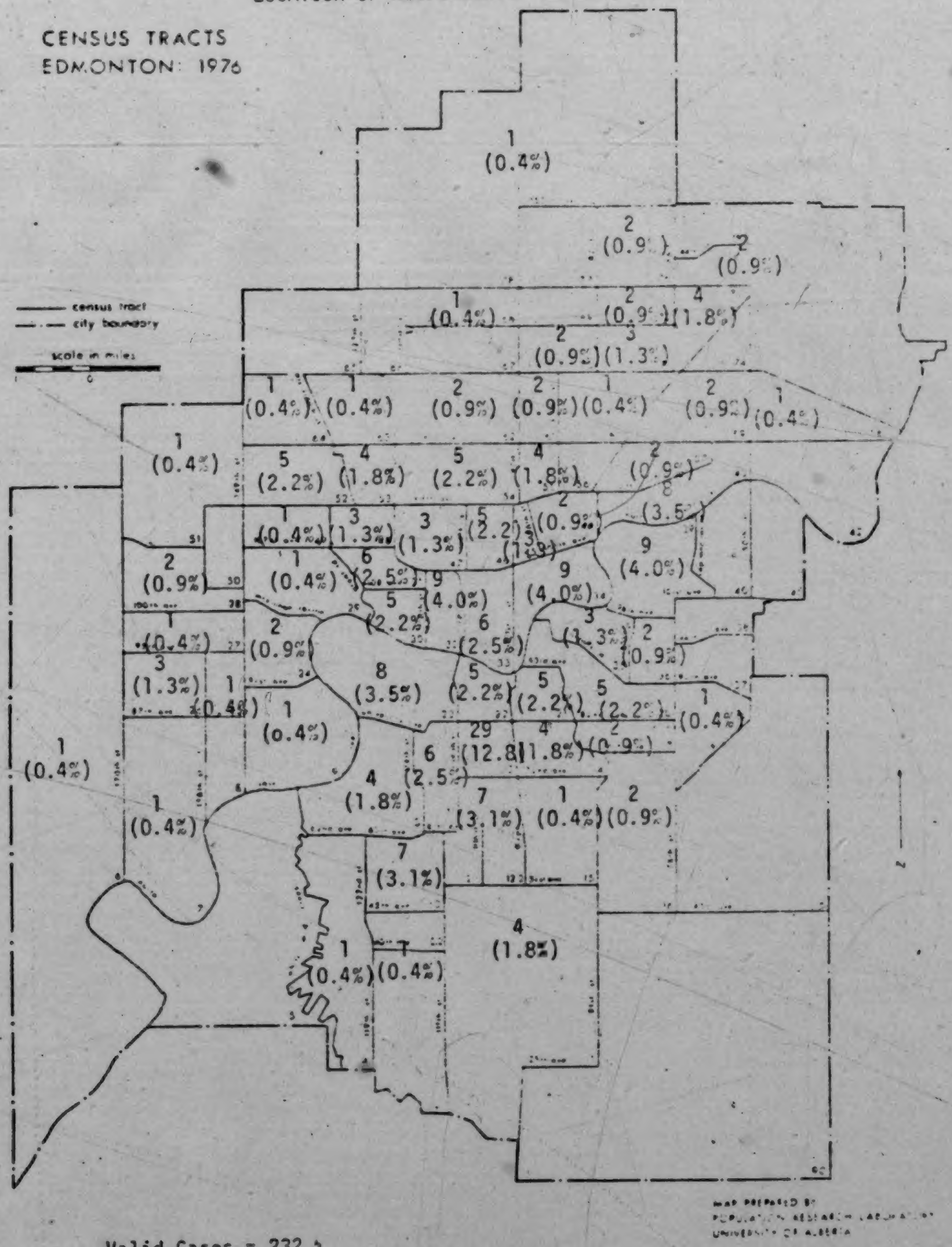
		Completed			Not Completed			
Date	Time	No.	Name	Phone	Doesn't Qualify	Refused	Specify	Comments

APPENDIX 4 - FIGURE

POOR COPY
COPIE DE QUALITEE INFERIEURE

FIGURE 1

LOCATION OF RESPONDENTS' HOMES



Valid Cases = 232
Outside City = 3